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NOTE: For trend comparison, use only the historical data for fiscal years 1970-91 contained in tables C-143 through C-163 in this Federal Funds, Volume XXXIX series. Do not use data published earlier. These tables incorporate changes in prior-year data made by the agencies to reflect program reclassifications.

GENERAL NOTES

Data in the tables of this publication were derived from the Survey of Federal Funds for Research and Development, Volume XXXIX, for fiscal years (FYs) 1989-91. They reflect research and development (R&D) funding levels as reported by 33 Federal agencies in March through September 1990. All agencies that conduct R&D programs were surveyed.

R&D totals in these tables are given in both outlays and obligations. The R&D obligation data are further categorized according to character of work (basic research, applied research, and development), performer, field of science or engineering (for research but not for development), and Federal R&D funding by State. Obligations for research performance at universities and colleges by fields of science or engineering are also shown, as are R&D plant data.

The amounts reported for each year are expressed in obligations or outlays incurred, or expected to be incurred, in that year, regardless of when the funds may have been authorized, appropriated, or received by an agency, and regardless of whether the funds are identified in an agency's budget specifically for research, development, or R&D plant.

Data for 1989 are actual, representing completed transactions. Data for 1990 and 1991 are estimated because they do not represent final actions. The Federal Funds survey was conducted during the third quarter of FY 1990. The amounts reported for 1990 reflect congressional appropriation actions as of that period, as well as apportionment and reprogramming decisions as of that time. Data for 1991 represent administration budget proposals that had not been acted on. Authorization, appropriation, deferral and apportionment actions that were completed after these data were collected will be reflected in later surveys of this series.

Accuracy of the data depends in part on the judgment of the respondent. Since many agency R&D programs are not identified as budget-line items, those agency officials must identify R&D and R&D plant activities within broader programs. Over the years,

personnel of the participating agencies have developed increasing skill and consistency in meeting the survey requirements, and their interaction with the National Science Foundation staff have considerably increased the reliability of the data.

Inquiries relating to Federal Funds for Research and Development, Volume XXXIX, should be directed to Carolyn Arena, Science and Engineering Activities Program, Division of Science Resources Studies, National Science Foundation, Washington D.C. 20550. Telephone: (202) 634-4673.

SECTION A. TECHNICAL NOTES

Scope and Method

During the period March through September 1990 a total of 33 Federal agencies and their subdivisions--100 individual respondents--submitted data in response to the Annual Survey of Federal Funds for Research and Development, Volume XXXIX, conducted by the National Science Foundation (NSF) and distributed in February 1990. The agencies reported their data as obligations and outlays incurred, or expected to be incurred, regardless of when the funds were appropriated or whether they were identified in the respondents' budgets specifically for research and development (R&D) activities.

Definitions

The definitions are essentially unchanged from those used in past Federal Funds surveys.

1. An **agency** is an organization of the Federal Government whose principal executive officer reports to the President. The Library of Congress is also included in the survey, however, even though its chief officer reports to the Congress. **Subdivision** refers to any organizational unit of a reporting agency, such as a bureau, division, office, or service.

2. **Obligations and outlays** reported are consistent with figures shown for fiscal years 1989, 1990, and 1991 appearing in The Budget of the United States Government, Fiscal Year 1991. The R&D data in both agency submissions were based on the same definitions and are reconcilable.

   Obligations represent the amounts for orders placed, contracts awarded, services received, and similar transactions during a given period, regardless of when the funds were appropriated and when future payment of money is required.

Outlays represent the amounts for checks issued and cash payments made during a given period, regardless of when the funds were appropriated.

Obligations and outlays cover all transactions that occurred in fiscal year 1989, and those estimated for 1990 and 1991. The data include all Federal funds available to an agency that the agency received or expects to receive, from direct appropriations, trust funds, and special account receipts, corporate income, or other sources, including funds appropriated to the President.

The amounts shown for each year reflect obligations or outlays for that year regardless of when the funds were originally authorized or received, and regardless of whether or not they were appropriated, received, or identified in the agency's budget specifically for research, development, or R&D plant.

In reporting its obligations or outlays, **each agency includes the amounts transferred to other agencies for support of research and development. The receiving agencies do not report funds transferred to them.** Similarly, a subdivision of an agency that transfers funds to another subdivision within that agency reports such obligations or outlays as its own.

Obligations and outlays for R&D performed for an agency in foreign countries include all funds available to the agency for this purpose, including funds separately appropriated for special foreign currency programs.

3. **Funds reported for research and development reflect full cost coverage.** In addition to costs of specific R&D projects, the applicable overhead costs are also included. The amounts reported include the costs of planning and administering R&D programs, laboratory overhead, pay of military personnel, and departmental administration.

4. **The fiscal year** in the Federal Government accounting period begins October 1 of a given year and ends September 30 of the following year; thus, fiscal year 1989 began on October 1, 1988, and ended September 30, 1989.

5. **Research, development, and R&D plant** include all direct, incidental, or related costs resulting from, or necessary to, performance of research and development, and costs of R&D plant as defined below, regardless of whether the R&D is performed by a Federal agency (intramurally) or performed by private individuals and organizations under grant or contract (extramurally). R&D excludes routine product testing, quality control, mapping and surveys, collection of general-purpose statistics, experimental production, and the training of scientific personnel.

   a. **Research** is systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research is classified as either basic or applied according to the objectives of the sponsoring agency.

      In **basic research** the objective of the sponsoring agency is to gain fuller knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications toward processes or products in mind.

      In **applied research** the objective of the sponsoring agency is to gain knowledge or understanding necessary for determining the means by which a recognized need may be met.

   b. **Development** is systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems, or methods, including design and development of prototypes and processes. It excludes quality control, routine product testing, and production.

   c. Demonstration activities that are part of research or development (i.e., that are intended to prove or to test whether a technology or method does, in fact, work) are included. Demonstrations intended primarily to make information available about new technologies or methods are not included.

   d. **R&D plant** (R&D facilities and fixed equipment, such as reactors, wind tunnels, and particle accelerators) includes acquisition of, construction of, major repairs to, or alterations in structures, works, equipment, facilities, or

land for use in R&D activities at Federal or non-Federal installations. Excluded from the R&D plant category are expendable or movable equipment (e.g., spectrometers, microscopes) and office furniture and equipment. Also excluded are the costs of predesign studies (e.g., those undertaken before commitment to a specific facility). These excluded costs are reported under total conduct of research and development. Obligations for foreign R&D plant are limited to Federal funds for facilities located abroad and used in support of foreign research and development.

6. **Fields of science and engineering** in this survey consist of eight broad field categories, each consisting of a number of detailed fields. The broad fields are life sciences, psychology, physical sciences, environmental sciences, mathematics and computer sciences, engineering, social sciences, and other sciences not elsewhere classified. The term not elsewhere classified (n.e.c.) is used for multidisciplinary projects within a broad field and for single-discipline projects for which a separate field has not been assigned. The following list presents the detailed fields grouped under each of the broad fields, together with illustrative disciplines of detailed fields.

   The illustrative disciplines are intended to be guidelines, not sharp definitions; they represent examples of disciplines generally classified under each detailed field. A discipline under one detailed field may be classified under another detailed field when the major emphasis is elsewhere. Research in biochemistry, for example, might be reported as biological, agricultural, or medical, depending on the orientation of the project. Human biochemistry would be classified under biological, but animal biochemistry or plant biochemistry would be under agricultural. In no case is the research reported under more than one field. No double counting is intended or allowed.

   a. **Life sciences** consist of five detailed fields: biological (excluding environmental), environmental biology, agricultural, medical, and life sciences, n.e.c.

      Biological (excluding environmental): anatomy; biochemistry; biology; biometry and biostatistics; biophysics; botany; cell biology; entomology and

parasitology; genetics; microbiology; neuroscience (biological); nutrition; physiology; zoology; other biological, n.e.c.

Environmental biology: ecosystem sciences; evolutionary biology; limnology; physiological ecology; population biology; population and biotic community ecology; systematics; other environmental biology, n.e.c.

Agricultural: agronomy; animal sciences; food science and technology; fish and wildlife; forestry; horticulture; plant sciences; soils and soil science; phytopathology; phytoproduction; agriculture, general; other agriculture, n.e.c.

Medical: internal medicine; neurology; obstetrics and gynecology; ophthalmology; otolaryngology; pediatrics; preventive medicine; pathology; pharmacology; psychiatry; radiology; surgery; dentistry; pharmacy; veterinary medicine; other medical, n.e.c.

Life sciences, n.e.c.

b. **Psychology** deals with behavior, mental processes, and individual and group characteristics and abilities. Psychology in this survey is divided into three categories: biological aspects, social aspects, and psychological sciences, n.e.c. Examples of the disciplines under each of these fields are as follows:

Biological aspects: experimental psychology; animal behavior; clinical psychology; comparative psychology; ethology

Social aspects: social psychology; educational, personnel, vocational psychology, and testing; industrial and engineering psychology; development and personality

Psychological sciences, n.e.c.

c. **Physical sciences** are concerned with understanding of the material universe and its phenomena. They comprise the fields of astronomy, chemistry, physics, and physical sciences, n.e.c. Examples of disciplines under each of these fields are as follows:

Astronomy: laboratory astrophysics; optical astronomy; radio astronomy; theoretical astrophysics; X-ray, Gamma-ray, neutrino astronomy

Chemistry: inorganic; organo-metallic; organic; physical

Physics: acoustics; atomic and molecular; condensed matter; elementary particle; nuclear structure; optics; plasma

Physical sciences, n.e.c.

d. **Environmental sciences** (terrestrial and extraterrestrial) are, with one exception, concerned with the gross nonbiological properties of the areas of the solar system that directly or indirectly affect man's survival and welfare. The one exception is that obligations for studies pertaining to life in the sea or other bodies of water are reported as support of oceanography and not biology. Environmental sciences comprise the fields of atmospheric sciences, geological sciences, oceanography, and environmental sciences, n.e.c. Examples of disciplines under each of these fields are as follows:

Atmospheric sciences: aeronomy; solar; weather modification; extraterrestrial atmospheres; meteorology

Geological sciences: engineering geophysics; general geology; geodesy and gravity; geomagnetism; hydrology; inorganic geochemistry; isotopic geochemistry; organic geochemistry; laboratory geophysics; paleomagnetism; paleontology; physical geography and cartography; seismology; soil sciences

Oceanography: biological oceanography; chemical oceanography; physical oceanography; marine geophysics

Environmental sciences, n.e.c.

e. **Mathematics and computer sciences** employ logical reasoning with the aid of symbols and are concerned with the development of methods of operation employing such symbols, and in the case of computer sciences, with the application of such methods to automated information systems. Examples of disciplines under these fields are as follows:

Mathematics: algebra; analysis; applied mathematics; foundations and logic; geometry; numerical analysis; statistics; topology

Computer sciences: programming languages; computer and information sciences (general); design, development, and application of computer capabilities to data storage and manipulation; information sciences and systems; systems analysis

Mathematics and computer sciences, n.e.c.

f. **Engineering** is concerned with studies directed toward developing engineering principles or toward making specific principles usable in engineering practice. Engineering in this survey is divided into eight fields: aeronautical, astronautical, chemical, civil, electrical, mechanical, metallurgy and materials, and engineering, n.e.c. Examples of disciplines under each of these fields are as follows:

Aeronautical: aerodynamics

Astronautical: aerospace; space technology

Chemical: petroleum; petroleum refining; process

Civil: architectural; hydraulic; hydrologic; marine; sanitary and environmental; structural; transportation

Electrical: communication; electronic; power

Mechanical: engineering mechanics

Metallurgy and materials: ceramic; mining; textile; welding

Engineering, n.e.c.: agricultural; bioengineering; biomedical; industrial and management; nuclear; ocean; systems

g. **Social sciences** are directed toward an understanding of the behavior of social institutions and groups and of individuals as members of a group. Social sciences include anthropology, economics, political science, sociology, and social sciences, n.e.c. Examples of disciplines under the fields of social science are as follows:

Anthropology: archaeology; cultural and personality; social and ethnology; applied anthropology

Economics: econometrics and economic statistics; history of economic thought; international economics; industrial, labor and agricultural economics; macroeconomics; microeconomics; public finance and fiscal policy; theory; economic systems and development

Political science: area or regional studies; comparative government; history of political ideas; international relations and law; national political and legal systems; political theory; public administration

Sociology: comparative and historical; complex organizations; culture and social structure; demography; group interactions; social problems and social welfare; sociological theory

Social sciences, n.e.c.: linguistics; research in education; research in history; socioeconomic geography; research in law, e.g., attempts to assess impact on society of legal systems and practices

h. **Other sciences, n.e.c.:** This category is used for multidisciplinary and interdisciplinary projects that cannot be classified within one of the broad fields of science above.

7. A **performer** is either an intramural group or organization carrying out an operational function or an extramural organization or person receiving support or providing services under a contract or grant.

   a. **Intramural performers** are the agencies of the Federal Government. Their work is carried on directly by agency personnel. Obligations reported under this category are for activities performed or to be performed by the reporting agency itself, or represent funds that the agency transfers to another Federal agency for performance of work **as long as the ultimate performer is that agency or any Federal agency.** If the ultimate performer is not a Federal agency, the funds so transferred are reported by the transferring agency under the appropriate extramural performer category (universities and colleges, or other nonprofit institutions, or industrial firms).

      NOTE: Intramural activities cover not only the actual intramural R&D performance, but also the costs associated with the planning and administration of both intramural and extramural programs by Federal personnel. Intramural activities also include the costs of supplies and equipment, essentially of an "off-the-shelf" nature, that are procured for use in intramural R&D. For example, the purchase from an extramural source of an operational launch vehicle (i.e., one that has gone beyond the development or prototype stage) that is used for intramural performance of R&D is reported as a part of the cost of intramural R&D.

   b. **Extramural performers** are organizations outside the Federal sector that perform R&D with Federal funds under contract, grant, or cooperative agreement. Only those costs associated with actual R&D performance are reported, but these would include costs of materials and supplies to carry out R&D activities. Note, however, that the costs of "off-the-shelf" supplies and equipment procured from extramural suppliers that are required to support intramural R&D are considered as part of the costs of intramural performance

and not as part of the costs of extramural performance. Extramural performers are identified as follows:

i. **Industrial firms:** Those organizations that may legally distribute net earnings to individuals or to other organizations.

ii. **Universities and colleges:** Institutions engaged primarily in providing resident and/or accredited instruction for at least a 2-year program above the secondary school level. Included are colleges of liberal arts; schools of arts and sciences; professional schools, as in engineering and medicine, including affiliated hospitals and associated research institutes; and agricultural experiment stations.

iii. **Other nonprofit institutions:** Private organizations other than educational institutions whose net earnings in no part inure to the benefit of a private stockholder or individual, and other private organizations organized for the exclusive purpose of turning over their entire net earnings to such nonprofit organizations.

iv. **Federally funded research and development centers (FFRDCs):** R&D performing organizations that are exclusively or substantially financed by the Federal Government, and are supported by the Federal Government either to meet a particular R&D objective or, in some instances, to provide major facilities at universities for research and associated training purposes. Each center is administered either by an industrial firm, or by a university or other nonprofit institution.

In general, all of the following criteria are met by an organization before it is included in the FFRDC category: (1) Its primary activities include one or more of the following: Basic research, applied research, development, or management of research and development (specifically excluded are organizations engaged primarily in routine quality control and testing, routine service activities, production, mapping and surveys, and information dissemination); (2) it is a separate operational unit within the parent organization or is organized as a separately incorporated organization; (3)

it performs actual research and development or R&D management either upon direct request of the Federal Government or under a broad charter from the Federal Government, but in either case under the direct monitorship of the Federal Government; (4) it receives its major financial support (70 percent or more) from the Federal Government, usually from one agency; (5) it has, or is expected to have, a long-term relationship with its sponsoring agency (about five years or more), as evidenced by specific obligations assumed by it and the agency; (6) most or all of its facilities are owned by, or are funded under contract with, the Federal Government; and (7) it has an average annual budget (operating and capital equipment) of at least $500,000.

v. **State and local governments:** State and local government agencies, excluding State or local universities and colleges, agricultural experiment stations, medical schools, and affiliated hospitals. (Federal R&D funds obligated directly to such State and local institutions excluded in this category are included under the universities-and-colleges category in this report.) R&D activities under the State and local category are performed either by the State or local agencies themselves or by other organizations under grants or contracts from such agencies. Regardless of the ultimate performer, Federal R&D funds directed to State and local governments are reported under this sector and no other.

vi. **Foreign performers:** Foreign citizens, foreign organizations, or foreign governments, as well as international organizations (such as NATO, UNESCO, WHO), performing R&D work abroad financed by the Federal Government. Excluded are U.S. agencies, organizations, or citizens performing research and development abroad for the Federal Government; the survey does not seek information on "off-shore" payments. An exception is made in the case of U.S. citizens performing research and development abroad under special foreign currency funds; these activities are included under foreign performers. Foreign scientists performing in the United States are excluded, however.

vii **Private individuals:** Where an R&D grant or contract is awarded directly to a private individual, obligations incurred are placed under "industrial firms."

8. **Federal obligations for research performed at universities and colleges by detailed field of science** Only six agencies participate in the portion of the survey covering the funding of research at universities and colleges by detailed field of science. These six agencies represent approximately 96 percent of the Federal research obligations to universities and colleges. The six agencies are the Departments of Agriculture; Defense; Energy; and Health and Human Services; The National Aeronautics and Space Administration (NASA); and the National Science Foundation (NSF).

9. **Geographic distribution of 1989 R&D obligations**

   a. Only the ten largest R&D funding agencies participate in the portion of the survey covering the geographic distribution of obligations for research and development and R&D plant. These ten agencies accounted for approximately 97 percent of total Federal R&D and R&D plant obligations in 1989. The respondents are the Departments of Agriculture; Commerce; Energy; Defense; Health and Human Services; the Interior; and Transportation; the Environmental Protection Agency; the National Aeronautics and Space Administration; and the National Science Foundation.

   b. Actual FY 1989 data were requested in terms of the principal location (State or outlying area) where the work was performed by the prime contractor, grantee, or intramural organization. When this information was not available in their records, the respondents were asked to assign the obligations to the State, outlying area, or office abroad where the headquarters of the U.S. prime contractor, grantee, or intramural organization was located.

   c. Obligations were reported for research and development as a combined amount.

d. Specifically omitted from the geographic portion of the survey were R&D obligations to foreign performers and obligations for R&D plant used in support of foreign performers. Foreign performer data, by country, are reported in a separate section of the Federal Funds survey.

Changes in Reporting

While completing the survey forms each year, agency respondents make revisions to their estimates for the latest two years of the previous report, in this case fiscal years 1989 and 1990. Such revision is part of the budgetary cycle. From time to time survey submissions also reflect reappraisals and revisions in classification of various aspects of agencies' R&D programs. When this occurs, NSF requires the agencies to provide revised prior-year data to maintain consistency and comparability with the most recent concepts.

Limitations of the Data

Funds for research and development were reported on a 3-year basis comparable with the 1991 budget, upon which the data were based. The amounts reported for each year, as already stated, are the obligations or outlays incurred in that year, regardless of when funds were authorized or received by an agency and regardless of whether the funds were identified in the agency's budget specifically for research, development, and/or R&D plant. The respondents reconciled the data reported to the Federal Funds survey with amounts for research and development they reported to OMB for the 1991 budget.

Some agencies are not able to report the full costs of research and development. For example, the headquarters costs of planning and administering R&D programs of DOD (estimated at a fraction of 1 percent of the DOD R&D total) are not included because this agency has stated that identification of the amounts is impracticable.

R&D plant data are also underreported to some extent because of the difficulty encountered by some agencies, particularly DOD and NASA, in identifying and reporting these data. DOD's respondents report obligations for the R&D plant funded under its construction appropriation, but they are able to identify only a small portion of the R&D plant support that is within R&D contracts that are funded from its appropriation for research, development, testing, and evaluation (RDT&E). Similarly, NASA respondents cannot separately identify the portions of industrial R&D contracts that apply to R&D plant; R&D plant data are subsumed in the R&D data covering industrial performance. NASA R&D plant data for other performing sectors are reported separately.

SECTION B. FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS (FFRDCs)

The following is the master list of FFRDCs included in the Federal Funds survey for fiscal years 1989-91; the information was current as of the February 1990 mailout of the survey. The list is arranged by sponsoring agency and administering organization.

Department of Defense

Office of the Secretary of Defense

Administered by other nonprofit institutions [1] :

- Institute for Defense Analyses, (IDA), Arlington, VA
- Logistics Management Institute, (LMI), Bethesda, MD
- National Defense Research Institute (RAND Corp. [2]), Santa Monica, CA
- C3I Federal Contract Research Center (MITRE Corp.[3]) Bedford, MA and McLean, VA

Defense Advanced Research Projects Agency

Administered by universities and colleges [4] :

- Software Engineering Institute (Carnegie Mellon University), Pittsburgh, PA

Department of the Navy

Administered by other nonprofit institutions [1] :

- Center for Naval Analyses (Hudson Institute), Arlington, VA

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[1] That is, other than universities and colleges.

[2] The following portions of the RAND Corporation were reported as FFRDCs: Project Air Force, National Defense Research Institute (formerly Defense/Office of the Joint Chiefs of Staff), and the Arroyo Center. All other agency support to RAND was reported under "other nonprofit institutions excluding FFRDCs."

[3] Only the C3I Division of the MITRE Corporation was reported as an FFRDC. All other agency support to MITRE was reported under " other nonprofit institutions excluding FFRDCs."

[4] This category also includes centers administered by university consortia.

Department of the Air Force

Administered by universities and colleges [4] :

- Lincoln Laboratory (Massachusetts Institute of Technology), Lexington, MA

Administered by other nonprofit institutions [1] :

- Aerospace Corporation, El Segundo, CA
- Project Air Force (RAND Corp. [2]), Santa Monica, CA C3I Federal Contract Research Center (MITRE Corp. [3]),

Department of the Army

Administered by other nonprofit institutions [1] :

- Arroyo Center (RAND Corp. [2 5]), Santa Monica, CA

Department of Health and Human Services

National Institutes of Health

Administered by industrial firms:

- Frederick Cancer Research Facility (Program Resources, Inc.; Bionetics Research, Inc.; Harlan Sprague Dawley, Inc.; Data Management Services, Inc.), Frederick, MD

Department of Energy

Administered by industrial firms:

- Bettis Atomic Power Laboratory (Westinghouse-Electric Corp.), Pittsburgh, PA
- Hanford Engineering Development Laboratory (Westinghouse-Hanford Corp.), Richland, WA

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[5] Arroyo Center did not receive Federal R&D funds in FY 89 so it does not appear in the tables listing individual FFRDCs in this publication, Federal Funds for Research and Development: Fiscal Years 1989, 1990, and 1991 (Volume XXXIX). The Center did receive operations and maintenance funds from the Department of the Army in FY 89 and 90.

- Idaho National Engineering Laboratory (E,G&G; Idaho; Rockwell International Corp.; Argonne
- National Laboratory, West; Westinghouse Electric Corp.), Idaho Falls, ID
- Knolls Atomic Power Laboratory (General Electric Co.), Schenectady, NY
- Energy Technology Engineering Center (Rockwell International Corp.), Canoga Park, CA
- Oak Ridge National Laboratory (Martin Marietta Energy Systems Corp.), Oak Ridge, TN
- Sandia National Laboratories (AT&T Technologies, Inc.--Sandia Corp.), Albuquerque, NM
- Savannah River Laboratory (E.I. duPont de Nemours Co.), Aiken, S.C.

Administered by universities and colleges [4] :

- Ames Laboratory (Iowa State University of Science and Technology), Ames, IA
- Argonne National Laboratory (University of Chicago and Argonne Universities Assn.), Argonne, IL
- Brookhaven National Laboratory (Associated Universities, Inc.), Upton, Long Island, NY
- Continuous Electron Beam Accelerator Facility (Southeastern Universities Research Association), Newport News, VA
- E.O. Lawrence Berkeley Laboratory (University of California), Berkeley, CA
- E.O. Lawrence Livermore National Laboratory (University of California), Livermore, CA
- Fermilab (Universities Research Association, Inc.), Batavia, IL
- Los Alamos National Laboratory (University of California), Los Alamos, NM
- Oak Ridge Associated Universities (Oak Ridge Associated Universities, Inc.), Oak Ridge, TN

  Plasma Physics Laboratory (Princeton University), Princeton, NJ
- Stanford Linear Accelerator Center (Stanford University), Stanford, CA

Administered by other nonprofit institutions [1] :

- Inhalation Toxicology Research Institute (Lovelace Medical Foundation), Albequerque, NM
- Pacific Northwest Laboratory (Battelle Memorial Institute), Richland, WA
- Solar Energy Research Institute (Midwest Research Institute), Golden, CO

National Aeronautics and Space Administration

Administered by universities and colleges [4] :

- Jet Propulsion Laboratory (California Institute of Technology), Pasadena, CA

National Science Foundation

Administered by universities and colleges [4] :

- National Astronomy and Ionosphere Center (Cornell University), Arecibo, PR
- National Center for Atmospheric Research (University Corporation for Atmospheric Research), Boulder, CO
- National Optical Astronomy Observatories (Association of Universities for Research in Astronomy, Inc.[6]), Tucson, AZ
- National Radio Astronomy Observatory (Associated Universities, Inc.), Green Bank, WV

Nuclear Regulatory Commission

Administered by other nonprofit institutions [1] :

- Center for Nuclear Waste Regulatory Analyses (Southwest Research Institute), San Antonio, TX

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[6] Since February 1984, this center includes three former FFRDCs: Cerro Tololo Inter-American Observatory, Kitt Peak National Observatory and the National Solar Observatory (formerly Sacramento Peak Observatory).

table notes

- Because of rounding, detail may not add to totals.

- Asterisks appearing in lieu of figures indicate that the amounts are less than $50,000 or less than .05 percent.

- The abbreviation "FFRDCs" appearing in statistical tables refers to federally funded research and development centers.

- In tables showing extramural performers, obligations of the Department of Agriculture to agricultural experiment stations are included within obligations to universities and colleges.

- Defense Agencies within the Department of Defense include the Defense Advanced Research Projects Agency, the Defense Nuclear Agency, the Defense Communications Agency, the Defense Mapping Agency, the Defense Logistics Agency, the Uniformed Services University of the Health Sciences, the Washington Headquarters Service, and the Strategic Defense Initiative Organization.

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Table C-1. Summary of Federal funds for research, development, and R&D plant: fiscal years 1989, 1990, and 1991

[Dollars in millions]

Item	Actual 1989	Estimates			
		1990	% Chg 1989-1990	1991	% Chg 1990-1991
Total outlays for research, development, and R&D plant	61,476.5	63,352.5	3.1%	66,689.8	5.3%
Research and development	59,450.4	60,793.4	2.3	64,024.0	5.3
R&D plant	2,026.1	2,559.1	26.3	2,665.8	4.2
Total obligations for research, development, and R&D plant	63,570.9	65,286.7	2.7	68,868.1	5.5
Research and development	61,405.8	62,320.1	1.5	66,107.3	6.1
Performers:					
Federal intramural 1/	15,120.9	16,094.1	6.4	16,396.3	1.9
Industrial firms	28,547.9	28,853.9	1.1	31,511.5	9.2
FFRDCs administered by industrial firms	1,960.0	2,053.6	4.8	2,062.3	.4
Universities and colleges	8,672.0	8,747.9	.9	9,190.8	5.1
FFRDCs administered by universities and colleges	3,497.1	3,410.3	-2.5	3,653.8	7.1
Other nonprofit institutions	1,999.1	2,183.6	9.2	2,301.7	5.4
FFRDCs administered by nonprofit institutions	522.0	444.7	-14.8	482.2	8.4
State and local governments	167.4	174.5	4.3	184.1	5.5
Foreign	919.4	357.4	-61.1	324.7	-9.2
Research	20,765.4	21,682.8	4.4	23,219.7	7.1
Performers:					
Federal intramural 1/	5,981.5	6,337.8	6.0	6,866.6	8.3
Industrial firms	2,875.1	3,162.0	10.0	3,427.3	8.4
FFRDCs administered by industrial firms	519.8	519.2	-.1	505.1	-2.7
Universities and colleges	7,793.2	7,872.8	1.0	8,356.1	6.1
FFRDCs administered by universities and colleges	1,703.4	1,732.9	1.7	1,863.2	7.5
Other nonprofit institutions	1,519.7	1,685.1	10.9	1,796.9	6.6
FFRDCs administered by nonprofit institutions	109.5	121.7	11.1	137.3	12.9
State and local governments	121.2	127.0	4.8	125.3	-1.4
Foreign	142.1	124.2	-12.6	141.9	14.2
Fields of science:					
Life sciences	8,495.1	8,913.6	4.9	9,407.0	5.5
Psychology	421.7	447.9	6.2	509.8	13.8
Physical sciences	3,705.2	3,895.0	5.1	4,191.5	7.6
Environmental sciences	1,773.3	2,103.9	18.6	2,344.8	11.4
Mathematics and computer sciences	735.4	720.9	-2.0	792.2	9.9
Engineering	4,442.0	4,361.2	-1.8	4,684.0	7.4
Social sciences	551.1	620.9	12.7	646.0	4.0
Other sciences, n.e.c.	641.6	619.5	-3.5	644.6	4.0
Basic research	10,602.0	11,347.6	7.0	12,254.6	8.0
Performers:					
Federal intramural 1/	2,370.7	2,573.0	8.5	2,782.3	8.1
Industrial firms	773.2	958.8	24.0	1,042.9	8.8
FFRDCs administered by industrial firms	166.7	176.5	5.9	193.9	9.8
Universities and colleges	5,221.4	5,376.7	3.0	5,720.8	6.4
FFRDCs administered by universities and colleges	1,098.1	1,146.2	4.4	1,266.9	10.5
Other nonprofit institutions	838.9	962.9	14.8	1,077.2	11.9
FFRDCs administered by nonprofit institutions	42.2	55.4	31.3	67.6	22.1
State and local governments	43.6	48.5	11.3	51.4	5.9
Foreign	47.4	49.6	4.6	51.6	4.1
Fields of science:					
Life sciences	4,915.7	5,203.2	5.8	5,589.4	7.4
Psychology	187.1	202.2	8.1	221.4	9.5
Physical sciences	2,506.5	2,696.5	7.6	2,966.3	10.0
Environmental sciences	1,016.9	1,184.2	16.5	1,328.2	12.2
Mathematics and computer sciences	345.8	356.0	2.9	378.7	6.4
Engineering	1,183.7	1,198.7	1.3	1,253.3	4.6
Social sciences	154.6	188.2	21.7	189.0	.5
Other sciences, n.e.c.	291.7	318.5	9.2	328.1	3.0
Applied research	10,163.3	10,335.2	1.7	10,965.2	6.1
Performers:					
Federal intramural 1/	3,610.8	3,764.7	4.3	4,084.3	8.5
Industrial firms	2,101.8	2,203.1	4.8	2,384.4	8.2
FFRDCs administered by industrial firms	353.2	342.8	-3.0	311.2	-9.2
Universities and colleges	2,571.8	2,496.1	-2.9	2,635.3	5.6
FFRDCs administered by universities and colleges	605.4	586.8	-3.1	596.3	1.6
Other nonprofit institutions	680.8	722.3	6.1	719.8	-.3
FFRDCs administered by nonprofit institutions	67.3	66.3	-1.5	69.7	5.1
State and local governments	77.6	78.5	1.2	73.9	-5.8
Foreign	94.6	74.6	-21.1	90.3	21.0
Fields of science:					
Life sciences	3,579.4	3,710.4	3.7	3,817.6	2.9
Psychology	234.5	245.7	4.7	288.4	17.4
Physical sciences	1,198.8	1,198.4	*	1,225.2	2.2
Environmental sciences	756.3	919.7	21.6	1,016.6	10.5
Mathematics and computer sciences	389.7	365.0	-6.3	413.5	13.3
Engineering	3,258.3	3,162.4	-2.9	3,430.6	8.5
Social sciences	396.4	432.7	9.2	456.9	5.6
Other sciences, n.e.c.	350.0	300.9	-14.0	316.4	5.2

Continued on next page

Table C-1. Summary of Federal funds for research, development, and R&D plant: fiscal years 1989, 1990, and 1991--Continued

[Dollars in millions]

Item	Actual, 1989	Estimates			
		1990	% Chg 1989-1990	1991	% Chg 1990-1991
Development	40,640.4	40,637.3	*	42,887.6	5.5%
Performers:					
Federal intramural 1/	9,139.5	9,756.3	6.7%	9,529.7	-2.3
Industrial firms	25,672.9	25,692.0	.1	28,084.1	9.3
FFRDCs administered by industrial firms	1,440.2	1,534.3	6.5	1,557.2	1.5
Universities and colleges	878.8	875.0	-.4	834.8	-4.6
FFRDCs administered by universities and colleges	1,793.6	1,677.4	-6.5	1,790.6	6.7
Other nonprofit institutions	479.5	498.5	4.0	504.8	1.3
FFRDCs administered by nonprofit institutions	412.4	323.0	-21.7	344.8	6.7
State and local governments	46.3	47.5	2.7	58.8	23.6
Foreign	777.3	233.2	-70.0	182.8	-21.6
R&D plant	2,165.1	2,966.6	37.0	2,760.8	-6.9
Performers supported:					
Federal intramural	329.5	448.4	36.1	383.3	-14.5
Industrial firms	900.4	1,250.3	38.9	1,034.4	-17.3
FFRDCs administered by industrial firms	212.3	235.5	10.9	243.6	3.4
Universities and colleges	204.9	167.0	-18.5	132.7	-20.6
FFRDCs administered by universities and colleges	489.9	711.4	45.2	745.8	4.8
Other nonprofit institutions	14.2	141.0	891.2	203.9	44.6
FFRDCs administered by nonprofit institutions	8.4	11.4	35.2	17.2	51.6
State and local governments	1.4	.0	-100.0	.0	.0
Foreign	4.2	1.6	-61.6	.0	-100.0

n.e.c. = Not elsewhere classified.

* Percentage less than .05%.

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal years 1989, 1990 and 1991

Table C-2. Federal funds for research, development, and R&D plant, by agency: fiscal years 1989, 1990, and 1991

[Dollars in millions]

Agency and subdivision	Obligations			Outlays		
	1989	Estimates		1989	Estimates	
		1990	1991		1990	1991
Total, all agencies	63,570.9	65,286.7	68,868.1	61,476.4	63,352.5	66,689.8
Departments						
Department of Agriculture, total	1,127.5	1,227.3	1,233.8	1,129.8	1,220.7	1,233.8
Agricultural Cooperative Service	2.8	2.8	2.8	2.8	2.8	2.8
Agricultural Marketing Service 1/	1.5	1.6	1.7	1.5	1.6	1.7
Agricultural Research Service	578.7	609.6	658.5	579.7	606.1	635.4
Animal & Plant Health Inspection Svc	7.7	13.9	12.3	7.7	11.9	12.3
Cooperative State Research Service	339.4	375.3	335.4	336.9	384.3	357.6
Economic Research Service	49.5	51.0	56.3	50.0	50.2	55.5
Federal Grain Inspection Service	1.1	1.3	1.3	1.1	1.3	1.3
Forest Service	133.0	157.3	150.2	136.4	146.1	152.0
Human Nutrition Information Service	8.4	9.0	10.7	8.4	9.0	10.7
Nat'l Agricultural Statistics Svc	2.9	3.1	3.2	2.8	3.0	3.2
Office of International Cooperation and Development	2.5	2.3	1.5	2.5	2.3	1.5
Department of Commerce, total	407.0	439.9	442.4	403.2	437.6	439.5
Bureau of the Census	4.9	5.0	4.8	5.0	5.0	5.0
Economic Development Administration	1.0	1.2	-	1.3	5.1	.7
National Institute of Standards & Technology	124.2	143.1	158.1	121.5	137.1	154.5
National Oceanic & Atmospheric Administration	269.1	282.7	271.1	269.1	282.7	271.1
National Telecommunications & Information Admin	7.8	8.0	8.3	6.2	7.5	8.2
Office of the Secretary	-	-	-	.1	.2	-
Department of Defense, total	38,076.2	36,514.4	37,379.7	36,869.1	36,360.2	36,519.2
Department of the Army	5,704.5	5,651.4	6,272.7	5,241.3	5,509.6	5,906.6
Military functions	5,667.1	5,616.7	6,224.0	5,203.9	5,474.9	5,857.9
Civil functions (Corps of Engineers)	37.4	34.7	48.7	37.4	34.7	48.7
Department of the Navy	9,755.7	9,693.6	9,449.0	9,559.5	9,577.7	9,580.1
Department of the Air Force	15,487.6	14,095.6	13,858.2	15,390.5	14,418.6	13,784.7
Defense agencies	6,973.3	6,819.1	7,398.1	6,501.3	6,670.9	7,027.2
Test & Eval, Dpty under Secretary Def	140.7	184.2	322.6	145.0	132.5	182.7
Director, Operational Test & Evaluation	14.4	70.5	79.1	31.6	50.9	38.0
Department of Education	161.0	190.3	189.1	155.7	176.5	179.5
Department of Energy	6,065.6	6,741.3	7,100.6	6,039.0	6,663.5	7,185.6
Department of Health and Human Services, total	7,981.4	8,587.6	8,985.5	7,773.4	8,199.4	8,662.6
Alcohol, Drug Abuse & Mental Health Administration	695.7	820.5	919.7	695.7	820.5	919.7
Centers for Disease Control	117.8	125.9	130.8	117.3	125.9	130.8
Food & Drug Administration	122.0	110.5	133.0	96.0	102.0	129.3
Health Care Financing Administration	49.1	50.0	36.0	32.5	41.4	41.1
Health Resources and Services Admin	10.5	10.5	10.5	10.5	10.5	10.5
Human Development Services	101.7	119.3	124.0	73.3	104.3	125.2
National Institutes of Health	6,833.8	7,271.0	7,562.6	6,699.0	6,944.8	7,257.4
Office of Assistant Secretary for Health	27.2	56.9	47.3	26.0	27.0	27.0
Office of the Secretary	7.8	5.0	5.0	7.8	5.0	5.0
Social Security Administration	15.8	18.0	16.6	14.8	18.0	16.6
Department of Housing and Urban Development	18.0	21.0	48.4	20.7	18.6	28.3

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Table C-2. Federal funds for research, development, and R&D plant, by agency: fiscal years 1989, 1990, and 1991--Continued

[Dollars in millions]

Agency and subdivision	Obligations			Outlays		
	1989	Estimates		1989	Estimates	
		1990	1991		1990	1991
Department of the Interior, total	479.8	515.8	493.4	485.3	492.5	499.6
Bureau of Land Management	3.0	2.8	5.0	3.0	2.8	5.0
Bureau of Mines	101.2	105.2	78.3	92.6	101.6	87.9
Bureau of Reclamation	4.2	4.7	6.8	4.2	4.7	6.8
Geological Survey	281.1	301.6	306.9	300.9	287.5	306.4
Mineral Management Service	2.2	2.0	2.5	1.9	2.0	2.4
National Park Service	19.4	19.5	22.8	19.4	19.5	22.8
Office of the Secretary	.4	.5	.7	.4	.5	.7
Office of Surface Mining Reclamation and Enforcement	.7	.8	.8	.7	.8	.9
United States Fish and Wildlife Service	67.5	78.6	69.6	62.2	73.1	66.8
Department of Justice, total	38.2	41.7	41.5	36.0	40.2	40.5
Drug Enforcement Administration	2.7	4.5	5.0	2.7	4.5	5.0
Federal Bureau of Investigation	7.7	5.8	6.6	6.5	5.7	6.4
Federal Prison System	5.1	4.5	4.6	3.8	3.2	3.8
Immigration and Naturalization Service	.1	.4	.4	.4	.4	.4
Office of Justice Programs	22.5	26.4	24.9	22.5	26.4	24.9
Department of Labor, total	35.4	36.5	43.0	28.9	37.3	41.8
Bureau of Labor Statistics	7.0	7.1	7.2	7.0	7.1	7.2
Employment Standards Administration	.1	.3	.2	.1	.3	.2
Employment and Training Administration	15.7	16.7	19.2	9.2	17.6	18.1
Labor-management Relations & Cooperative Programs	.3	.1	.1	.3	.1	.1
Occupational Safety and Health Administration	4.5	4.1	4.1	4.5	4.1	4.1
Office of Pension & Welfare Benefits	1.4	2.4	2.6	1.3	2.3	2.5
Office of the Secretary	6.1	5.4	9.1	6.1	5.4	9.1
Pension Benefit Guarantee Corporation	.3	.5	.5	.3	.5	.5
Department of State, total	4.7	4.5	4.5	4.7	4.5	4.5
Departmental Funds	4.7	4.5	4.5	4.7	4.5	4.5
Department of Transportation, total	318.1	389.2	412.5	291.5	355.5	383.6
Coast Guard	17.9	21.0	23.0	18.1	17.3	22.0
Federal Aviation Administration	162.3	233.8	226.1	153.5	209.0	224.0
Federal Highway Administration	90.3	82.2	105.6	76.5	74.2	81.4
Federal Railroad Administration	9.0	13.3	17.0	7.0	15.2	15.3
National Highway Traffic Safety Administration	29.7	27.7	29.6	28.5	28.7	28.7
Office of the Secretary	5.5	7.1	7.2	4.2	6.6	8.2
Research and Special Programs Administration	2.0	2.6	2.3	1.6	2.1	1.9
Urban Mass Transportation Administration	1.4	1.6	1.6	2.0	2.5	2.1
Department of the Treasury, total	25.7	28.4	28.0	23.5	28.7	28.8
Bureau of Engraving and Printing	1.7	3.6	2.6	1.7	3.6	2.6
Internal Revenue Service	14.4	16.8	16.8	14.0	16.3	16.3
Office of Protective Research	.6	.5	.5	.6	.5	.5
United States Customs Service	6.9	6.3	8.1	6.9	6.3	8.1
United States Mint	2.0	1.2	-	.3	2.0	1.3
Department of Veterans Affairs	245.7	247.1	216.9	186.4	217.0	212.5
Other agencies						
Advisory Commission on Intergovernmental Relations	1.1	1.4	1.4	1.2	1.3	1.3
Agency for International Development	279.1	211.6	218.5	279.1	211.6	218.5
Appalachian Regional Commission	.8	1.0	1.0	.8	1.0	1.0
Consumer Product Safety Commission	1.3	.9	.8	1.3	1.0	.8
Environmental Protection Agency	380.3	416.7	442.4	343.2	388.5	417.8
Federal Communications Commission	1.1	2.0	1.3	1.1	2.0	1.3
Office of Thrift Supervision 2/	4.1	5.8	6.4	4.1	5.8	6.4
Federal Trade Commission	.4	.5	.5	.4	.5	.5
General Services Administration	.5	13.8	.1	.5	4.7	7.9
International Trade Commission	8.7	9.6	10.5	8.7	9.6	10.5
Library of Congress	8.0	8.0	10.8	8.0	8.0	10.8
National Aeronautics and Space Administration	5,913.0	7,487.9	9,144.4	5,506.1	6,401.3	8,266.9
National Archives	.3	.3	.6	.3	.3	.6
National Science Foundation	1,724.0	1,885.2	2,137.4	1,613.4	1,807.7	2,018.6
Nuclear Regulatory Commission	114.8	109.3	116.2	113.2	110.7	114.5
Smithsonian Institution	83.6	92.3	104.2	82.6	89.7	99.3
Tennessee Valley Authority	62.8	54.6	50.0	61.7	55.6	50.9
United States Arms Control and Disarmament Agency	2.8	.6	2.0	2.8	.6	2.0
United States Information Agency	.1	.3	.4	1.0	.3	.4

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-3. Federal funds for total research and development, by agency: fiscal years 1989, 1990, and 1991

[Dollars in millions]

Agency and subdivision	Obligations			Outlays		
	1989	Estimates		1989	Estimates	
		1990	1991		1990	1991
Total, all agencies	61,405.8	62,320.1	66,107.3	59,450.4	60,793.4	64,024.0
Departments						
Department of Agriculture, total	1,038.3	1,103.6	1,157.6	1,037.5	1,064.7	1,103.7
Agricultural Cooperative Service	2.8	2.8	2.8	2.8	2.8	2.8
Agricultural Marketing Service 1/	1.5	1.6	1.7	1.5	1.6	1.7
Agricultural Research Service	523.5	546.9	587.8	528.0	537.1	574.7
Animal & Plant Health Inspection Svc	7.4	7.8	8.3	7.4	7.8	8.3
Cooperative State Research Service	307.3	324.9	335.4	298.3	305.8	296.2
Economic Research Service	49.5	51.0	56.3	50.0	50.2	55.5
Federal Grain Inspection Service	1.1	1.3	1.3	1.1	1.3	1.3
Forest Service	131.4	152.9	148.7	134.7	143.7	148.0
Human Nutrition Information Service	8.4	9.0	10.7	8.4	9.0	10.7
Nat'l Agricultural Statistics Svc	2.9	3.1	3.2	2.8	3.0	3.2
Office of International Cooperation and Development	2.5	2.3	1.5	2.5	2.3	1.5
Department of Commerce, total	397.9	424.0	425.8	394.0	421.3	423.2
Bureau of the Census	4.9	5.0	4.8	5.0	5.0	5.0
Economic Development Administration	1.0	1.2	-	1.1	4.3	.7
National Institute of Standards & Technology	115.5	133.0	145.1	113.0	127.4	141.8
National Oceanic & Atmospheric Administration	268.6	276.9	267.5	268.6	276.9	267.5
National Telecommunications & Information Admin	7.8	8.0	8.3	6.2	7.5	8.2
Office of the Secretary	-	-	-	.1	.2	-
Department of Defense, total	37,576.9	35,899.1	36,918.0	36,453.4	35,841.3	36,049.3
Department of the Army	5,659.3	5,592.5	6,227.5	5,201.6	5,467.5	5,875.7
Military functions	5,622.0	5,557.8	6,178.9	5,164.2	5,432.8	5,827.0
Civil functions (Corps of Engineers)	37.4	34.7	48.7	37.4	34.7	48.7
Department of the Navy	9,666.1	9,588.9	9,357.5	9,475.0	9,490.8	9,489.2
Department of the Air Force	15,237.4	13,719.5	13,583.0	15,190.8	14,119.0	13,509.9
Defense agencies	6,858.9	6,743.6	7,348.4	6,409.5	6,580.7	6,953.7
Test & Eval, Dpty under Secretary Def	140.7	184.2	322.6	145.0	132.5	182.7
Director, Operational Test & Evaluation	14.4	70.5	79.1	31.6	50.9	38.0
Department of Education	159.1	181.0	187.3	153.4	171.6	177.2
Department of Energy	5,192.6	5,697.5	6,006.3	5,200.6	5,603.6	6,040.3
Department of Health and Human Services, total	7,902.8	8,457.4	8,887.9	7,717.4	8,124.0	8,596.6
Alcohol, Drug Abuse & Mental Health Administration	695.7	820.5	919.7	695.7	820.5	919.7
Centers for Disease Control	117.8	125.9	130.8	117.8	125.9	130.8
Food & Drug Administration	99.0	110.0	125.5	94.0	99.0	114.3
Health Care Financing Administration	49.1	50.0	36.0	32.5	41.4	41.1
Health Resources and Services Admin	10.5	10.5	10.5	10.5	10.5	10.5
Human Development Services	101.7	119.3	124.0	73.3	104.3	125.2
National Institutes of Health	6,778.3	7,141.3	7,472.5	6,645.0	6,872.4	7,206.4
Office of Assistant Secretary for Health	27.2	56.9	47.3	26.0	27.0	27.0
Office of the Secretary	7.8	5.0	5.0	7.8	5.0	5.0
Social Security Administration	15.8	18.0	16.6	14.8	18.0	16.6
Department of Housing and Urban Development	18.0	21.0	48.4	20.7	18.6	28.3

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Table C-3. Federal funds for total research and development, by agency: fiscal years 1989, 1990, and 1991--Continued

[Dollars in millions]

Agency and subdivision	Obligations			Outlays		
	1989	Estimates		1989	Estimates	
		1990	1991		1990	1991
Department of the Interior, total	469.0	504.4	489.1	478.4	484.7	496.2
Bureau of Land Management	3.0	2.8	5.0	3.0	2.8	5.0
Bureau of Mines	98.7	104.8	77.7	90.6	101.1	87.4
Bureau of Reclamation	4.2	4.7	6.8	4.2	4.7	6.8
Geological Survey	279.9	300.3	305.1	299.5	286.2	304.6
Mineral Management Service	2.2	2.0	2.5	1.9	2.0	2.4
National Park Service	19.4	19.5	22.8	19.4	19.5	22.8
Office of the Secretary	.4	.5	.7	.4	.5	.7
Office of Surface Mining Reclamation and Enforcement	.7	.8	.8	.7	.8	.9
United States Fish and Wildlife Service	60.6	69.1	67.7	58.8	67.1	65.7
Department of Justice, total	38.2	41.7	41.5	36.0	40.2	40.5
Drug Enforcement Administration	2.7	4.5	5.0	2.7	4.5	5.0
Federal Bureau of Investigation	7.7	5.8	6.6	6.5	5.7	6.4
Federal Prison System	5.1	4.5	4.6	3.8	3.2	3.8
Immigration and Naturalization Service	.1	.4	.4	.4	.4	.4
Office of Justice Programs	22.5	26.4	24.9	22.5	26.4	24.9
Department of Labor, total	35.4	36.5	43.0	28.9	37.3	41.8
Bureau of Labor Statistics	7.0	7.1	7.2	7.0	7.1	7.2
Employment Standards Administration	.1	.3	.2	.1	.3	.2
Employment and Training Administration	15.7	16.7	19.2	9.2	17.6	18.1
Labor-management Relations & Cooperative Programs	.3	.1	.1	.3	.1	.1
Occupational Safety and Health Administration	4.5	4.1	4.1	4.5	4.1	4.1
Office of Pension & Welfare Benefits	1.4	2.4	2.6	1.3	2.3	2.5
Office of the Secretary	6.1	5.4	9.1	6.1	5.4	9.1
Pension Benefit Guarantee Corporation	.3	.5	.5	.3	.5	.5
Department of State, total	4.7	4.5	4.5	4.7	4.5	4.5
Departmental Funds	4.7	4.5	4.5	4.7	4.5	4.5
Department of Transportation, total	302.6	369.9	390.2	278.6	341.2	366.2
Coast Guard	17.9	21.0	23.0	18.1	17.3	22.0
Federal Aviation Administration	146.8	215.2	205.3	141.0	194.8	207.5
Federal Highway Administration	90.3	82.2	105.6	76.5	74.2	81.4
Federal Railroad Administration	9.0	12.5	15.5	6.7	15.1	14.4
National Highway Traffic Safety Administration	29.7	27.7	29.6	28.5	28.7	28.7
Office of the Secretary	5.5	7.1	7.2	4.2	6.6	8.2
Research and Special Programs Administration	2.0	2.6	2.3	1.6	2.1	1.9
Urban Mass Transportation Administration	1.4	1.6	1.6	2.0	2.5	2.1
Department of the Treasury, total	25.6	28.3	27.9	23.4	28.6	28.7
Bureau of Engraving and Printing	1.7	3.6	2.6	1.7	3.6	2.6
Internal Revenue Service	14.4	16.8	16.8	14.0	16.3	16.3
Office of Protective Research	.6	.5	.5	.6	.5	.5
United States Customs Service	6.8	6.2	8.0	6.8	6.2	8.0
United States Mint	2.0	1.2	-	.3	2.0	1.3
Department of Veterans Affairs	234.7	239.3	211.5	184.9	211.7	202.1
Other agencies						
Advisory Commission on Intergovernmental Relations	1.1	1.4	1.4	1.2	1.3	1.3
Agency for International Development	279.1	211.6	218.5	279.1	211.6	218.5
Appalachian Regional Commission	.8	1.0	1.0	.8	1.0	1.0
Consumer Product Safety Commission	1.3	.9	.8	1.3	1.0	.8
Environmental Protection Agency	380.3	416.7	442.4	343.2	388.5	417.8
Federal Communications Commission	1.1	2.0	1.3	1.1	2.0	1.3
Office of Thrift Supervision 2/	4.1	5.8	6.4	4.1	5.8	6.4
Federal Trade Commission	.4	.5	.5	.4	.5	.5
General Services Administration	.5	.8	.1	.5	.8	.1
International Trade Commission	8.7	9.6	10.5	8.7	9.6	10.5
Library of Congress	8.0	8.0	10.8	8.0	8.0	10.8
National Aeronautics and Space Administration	5,393.5	6,635.4	8,322.1	4,974.8	5,773.3	7,547.3
National Archives	.3	.3	.6	.3	.3	.6
National Science Foundation	1,670.4	1,765.8	1,983.4	1,556.7	1,744.0	1,943.7
Nuclear Regulatory Commission	114.8	109.3	116.2	113.2	110.7	114.5
Smithsonian Institution	80.2	87.5	100.1	79.8	85.4	97.1
Tennessee Valley Authority	62.6	54.3	49.9	61.6	55.3	50.8
United States Arms Control and Disarmament Agency	2.8	.6	2.0	2.8	.6	2.0
United States Information Agency	.1	.3	.4	1.0	.3	.4

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-4. Federal obligations for total research and development, by agency and character of work: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Total, all agencies	61,405,753	10,602,011	10,163,337	40,640,405
Departments				
Department of Agriculture, total	1,038,279	484,928	517,294	36,057
Agricultural Cooperative Service	2,821	-	2,821	-
Agricultural Marketing Service 1/	1,548	-	1,254	294
Agricultural Research Service	523,511	282,696	209,404	31,411
Animal & Plant Health Inspection Svc	7,354	-	7,354	-
Cooperative State Research Service	307,290	142,605	164,685	-
Economic Research Service	49,508	6,931	42,577	-
Federal Grain Inspection Service	1,100	-	771	329
Forest Service	131,400	50,000	77,500	3,900
Human Nutrition Information Service	8,395	-	8,395	-
Nat'l Agricultural Statistics Svc	2,897	953	1,944	-
Office of International Cooperation and Development	2,455	1,743	589	123
Department of Commerce, total	397,862	29,099	321,879	46,884
Bureau of the Census	4,933	1,163	1,819	1,951
Economic Development Administration	1,007	-	1,007	-
National Institute of Standards & Technology	115,546	27,936	77,621	9,989
National Oceanic & Atmospheric Administration	268,626	-	234,569	34,057
National Telecommunications & Information Admin	7,750	-	6,863	887
Department of Defense, total	37,576,887	947,927	2,708,197	33,920,763
Department of the Army	5,659,345	187,168	636,275	4,835,902
Department of the Navy	9,666,147	354,037	429,181	8,882,929
Department of the Air Force	15,237,389	202,804	604,597	14,429,988
Defense agencies	6,858,894	203,918	1,038,144	5,616,832
Test & Eval, Dpty Under Secretary Def	140,740	-	-	140,740
Director, Operational Test & Eval	14,372	-	-	14,372
Department of Education	159,129	4,439	117,523	37,167
Department of Energy	5,192,612	1,410,902	1,020,779	2,760,931
Department of Health and Human Services, total	7,902,837	4,388,007	2,700,427	814,403
Alcohol, Drug Abuse & Mental Health Administration	695,685	307,980	384,660	3,045
Centers for Disease Control	117,785	-	117,785	-
Food & Drug Administration	99,000	-	99,000	-
Health Care Financing Administration	49,076	-	49,076	-
Health Resources and Services Admin	10,483	1,180	9,303	-
Human Development Services	101,689	-	8,496	93,193
National Institutes of Health	6,778,264	4,053,297	2,008,466	716,501
Office of Assistant Secretary for Health	27,214	25,550	-	1,664
Office of the Secretary	7,795	-	7,795	-
Social Security Administration	15,846	-	15,846	-
Department of Housing and Urban Development	18,004	-	6,102	11,902
Department of the Interior, total	469,020	188,907	253,031	27,082
Bureau of Land Management	3,000	-	2,000	1,000
Bureau of Mines	98,662	43,941	49,282	5,439
Bureau of Reclamation	4,164	2	3,533	629
Geological Survey	279,860	140,164	126,782	12,914
Mineral Management Service	2,212	-	2,212	-
National Park Service	19,422	-	19,422	-
Office of the Secretary	400	-	-	400
Office of Surface Mining Reclamation and Enforcement	700	-	700	-
United States Fish and Wildlife Service	60,600	4,800	49,100	6,700
Department of Justice, total	38,156	6,797	10,724	20,635
Drug Enforcement Administration	2,700	-	500	2,200
Federal Bureau of Investigation	7,676	-	-	7,676
Federal Prison System	5,149	-	2,149	3,000
Immigration and Naturalization Service	85	-	85	-
Office of Justice Programs	22,546	6,797	7,990	7,759
Department of Labor, total	35,427	318	21,841	13,268
Bureau of Labor Statistics	7,000	-	7,000	-
Employment Standards Administration	118	-	118	-
Employment and Training Administration	15,733	318	5,732	9,683
Labor-Management Relations & Cooperative Programs	303	-	303	-

Continued on next page

Table C-4. Federal obligations for total research and development, by agency and character of work: fiscal year 1989 --Continued

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Occupational Safety and Health Administration	4,503	-	4,503	-
Office of Pension & Welfare Benefits	1,413	-	1,413	-
Office of the Secretary	6,057	-	2,472	3,585
Pension Benefit Guarantee Corporation	300	-	300	-
Department of State, total	4,714	3,437	1,277	-
Departmental funds	4,714	3,437	1,277	-
Department of Transportation, total	302,581	-	120,272	182,309
Coast Guard	17,930	-	4,600	13,330
Federal Aviation Administration	146,766	-	23,579	123,187
Federal Highway Administration	90,264	-	56,387	33,877
Federal Railroad Administration	8,955	-	7,480	1,475
National Highway Traffic Safety Administration	29,718	-	26,242	3,476
Office of the Secretary	5,502	-	1,284	4,218
Research and Special Programs Administration	2,047	-	700	1,347
Urban Mass Transportation Administration	1,399	-	-	1,399
Department of the Treasury, total	25,573	3,358	12,952	9,263
Bureau of Engraving and Printing	1,672	473	906	293
Internal Revenue Service	14,423	2,885	11,250	288
Office of Protective Research	596	-	376	220
United States Customs Service	6,838	-	420	6,418
United States Mint	2,044	-	-	2,044
Department of Veterans Affairs	234,700	16,600	197,100	21,000
Other agencies				
Advisory Commission on Intergovernmental Relations	1,130	-	1,130	-
Agency for International Development	279,121	3,060	216,012	60,049
Appalachian Regional Commission	767	-	767	-
Consumer Product Safety Commission	1,334	-	486	848
Environmental Protection Agency	380,342	50,711	222,635	106,996
Federal Communications Commission	1,101	-	1,101	-
Office of Thrift Supervision 2/	4,051	-	4,051	-
Federal Trade Commission	379	-	379	-
General Services Administration	540	-	540	-
International Trade Commission	8,671	-	8,671	-
Library of Congress	7,969	367	1,200	6,402
National Aeronautics and Space Administration	5,393,476	1,417,410	1,461,400	2,514,666
National Archives	265	55	100	110
National Science Foundation	1,670,396	1,562,629	107,767	-
Nuclear Regulatory Commission	114,815	-	114,815	-
Smithsonian Institution	80,152	80,152	-	-
Tennessee Valley Authority	62,580	2,908	11,662	48,010
United States Arms Control and Disarmament Agency	2,783	-	1,223	1,560
United States Information Agency	100	-	-	100

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-5. Federal obligations for total research and development, by agency and character of work: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Total, all agencies	62,320,053	11,347,593	10,335,183	40,637,277
Departments				
Department of Agriculture, total	1,103,635	513,088	552,231	38,316
Agricultural Cooperative Service	2,779	-	2,779	-
Agricultural Marketing Service 1/	1,623	-	1,315	308
Agricultural Research Service	546,923	295,339	218,769	32,815
Animal & Plant Health Inspection Svc	7,809	-	7,809	-
Cooperative State Research Service	324,878	149,856	175,022	-
Economic Research Service	51,033	7,145	43,888	-
Federal Grain Inspection Service	1,277	-	799	478
Forest Service	152,900	58,100	90,200	4,600
Human Nutrition Information Service	9,031	-	9,031	-
Nat'l Agricultural Statistics Svc	3,092	1,017	2,075	-
Office of International Cooperation and Development	2,290	1,631	544	115
Department of Commerce, total	424,037	30,009	337,501	56,527
Bureau of the Census	4,976	549	2,364	2,063
Economic Development Administration	1,200	-	1,200	-
National Institute of Standards & Technology	133,026	29,460	86,728	16,838
National Oceanic & Atmospheric Administration	276,867	-	240,188	36,679
National Telecommunications & Information Admin	7,968	-	7,021	947
Department of Defense, total	35,899,126	892,185	2,342,705	32,664,236
Department of the Army	5,592,487	176,583	542,565	4,873,339
Department of the Navy	9,588,927	353,997	424,703	8,810,227
Department of the Air Force	13,719,537	177,379	529,201	13,012,957
Defense agencies	6,743,554	184,226	846,236	5,713,092
Test & Eval, Dpty Under Secretary Def	184,166	-	-	184,166
Director, Operational Test & Eval	70,455	-	-	70,455
Department of Education	181,045	4,995	128,155	47,895
Department of Energy	5,697,450	1,530,979	1,109,188	3,057,283
Department of Health and Human Services, total	8,457,396	4,661,681	2,915,356	880,359
Alcohol, Drug Abuse & Mental Health Administration	820,454	357,512	458,663	4,279
Centers for Disease Control	125,936	-	125,936	-
Food & Drug Administration	110,000	-	110,000	-
Health Care Financing Administration	50,000	-	50,000	-
Health Resources and Services Admin	10,464	1,119	9,345	-
Human Development Services	119,263	-	11,364	107,899
National Institutes of Health	7,141,300	4,257,500	2,116,800	767,000
Office of Assistant Secretary for Health	56,931	45,550	10,200	1,181
Office of the Secretary	5,001	-	5,001	-
Social Security Administration	18,047	-	18,047	-
Department of Housing and Urban Development	20,951	-	7,507	13,444
Department of the Interior, total	504,443	200,273	270,224	33,946
Bureau of Land Management	2,800	-	2,100	700
Bureau of Mines	104,754	42,922	52,029	9,803
Bureau of Reclamation	4,651	-	4,163	488
Geological Survey	300,311	153,151	132,021	15,139
Mineral Management Service	2,045	-	2,045	-
National Park Service	19,500	-	19,500	-
Office of the Secretary	500	-	-	500
Office of Surface Mining Reclamation and Enforcement	782	-	766	16
United States Fish and Wildlife Service	69,100	4,200	57,600	7,300
Department of Justice, total	41,650	8,955	12,114	20,581
Drug Enforcement Administration	4,500	-	500	4,000
Federal Bureau of Investigation	5,822	-	-	5,822
Federal Prison System	4,512	-	1,800	2,712
Immigration and Naturalization Service	400	-	400	-
Office of Justice Programs	26,416	8,955	9,414	8,047
Department of Labor, total	36,501	290	21,986	14,225
Bureau of Labor Statistics	7,100	-	7,100	-
Employment Standards Administration	265	-	265	-
Employment and Training Administration	16,668	290	5,518	10,860
Labor-Management Relations & Cooperative Programs	70	-	70	-

Continued on next page

Table C-5. Federal obligations for total research and development, by agency and character of work: fiscal year 1990 (est.) --Continued

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Occupational Safety and Health Administration	4,125	-	4,125	-
Office of Pension & Welfare Benefits	2,429	-	2,429	-
Office of the Secretary	5,379	-	2,179	3,200
Pension Benefit Guarantee Corporation	465	-	300	165
Department of State, total	4,511	3,321	1,190	-
Departmental funds	4,511	3,321	1,190	-
Department of Transportation, total	369,911	-	121,219	248,692
Coast Guard	21,000	-	5,589	15,411
Federal Aviation Administration	215,203	-	28,665	186,538
Federal Highway Administration	82,188	-	50,695	31,493
Federal Railroad Administration	12,537	-	10,037	2,500
National Highway Traffic Safety Administration	27,672	-	23,857	3,815
Office of the Secretary	7,070	-	1,776	5,294
Research and Special Programs Administration	2,646	-	600	2,046
Urban Mass Transportation Administration	1,595	-	-	1,595
Department of the Treasury, total	28,312	3,585	15,413	9,314
Bureau of Engraving and Printing	3,586	225	1,424	1,937
Internal Revenue Service	16,800	3,360	13,104	336
Office of Protective Research	485	-	485	-
United States Customs Service	6,200	-	400	5,800
United States Mint	1,241	-	-	1,241
Department of Veterans Affairs	239,300	16,200	201,000	22,100
Other agencies				
Advisory Commission on Intergovernmental Relations	1,360	-	1,360	-
Agency for International Development	211,644	5,302	161,672	44,670
Appalachian Regional Commission	1,000	-	1,000	-
Consumer Product Safety Commission	918	-	230	688
Environmental Protection Agency	416,722	75,623	240,431	100,668
Federal Communications Commission	1,988	-	1,988	-
Office of Thrift Supervision 2/	5,786	-	5,786	-
Federal Trade Commission	459	-	459	-
General Services Administration	805	-	805	-
International Trade Commission	9,595	-	9,595	-
Library of Congress	8,040	313	1,153	6,574
National Aeronautics and Space Administration	6,635,400	1,659,200	1,636,000	3,340,200
National Archives	265	55	100	110
National Science Foundation	1,765,839	1,651,009	114,830	-
Nuclear Regulatory Commission	109,290	-	109,290	-
Smithsonian Institution	87,516	87,516	-	-
Tennessee Valley Authority	54,274	3,014	13,811	37,449
United States Arms Control and Disarmament Agency	584	-	584	-
United States Information Agency	300	-	300	-

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-6. Federal obligations for total research and development, by agency and character of work: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Total, all agencies	66,107,293	12,254,557	10,965,183	42,887,553
Departments				
Department of Agriculture, total	1,157,574	546,789	570,084	40,701
Agricultural Cooperative Service	2,811	-	2,811	-
Agricultural Marketing Service 1/	1,684	-	1,364	320
Agricultural Research Service	587,810	317,417	235,124	35,269
Animal & Plant Health Inspection Svc	8,250	-	8,250	-
Cooperative State Research Service	335,393	162,898	172,495	-
Economic Research Service	56,262	7,877	48,385	-
Federal Grain Inspection Service	1,277	-	738	539
Forest Service	148,700	56,500	87,700	4,500
Human Nutrition Information Service	10,705	-	10,705	-
Nat'l Agricultural Statistics Svc	3,230	1,063	2,167	-
Office of International Cooperation and Development	1,452	1,034	345	73
Department of Commerce, total	425,782	32,712	329,428	63,642
Bureau of the Census	4,849	548	2,364	1,937
National Institute of Standards & Technology	145,124	32,164	90,945	22,015
National Oceanic & Atmospheric Administration	267,509	-	228,759	38,750
National Telecommunications & Information Admin	8,300	-	7,360	940
Department of Defense, total	36,918,043	972,219	2,497,322	33,448,502
Department of the Army	6,227,537	190,640	604,268	5,432,629
Department of the Navy	9,357,462	399,289	464,225	8,493,948
Department of the Air Force	13,582,969	201,406	580,166	12,801,397
Defense agencies	7,348,368	180,884	848,663	6,318,821
Test & Eval, Dpty Under Secretary Def	322,618	-	-	322,618
Director, Operational Test & Eval	79,089	-	-	79,089
Department of Education	187,250	6,854	147,597	32,799
Department of Energy	6,006,279	1,677,172	1,064,091	3,265,016
Department of Health and Human Services, total	8,887,903	4,940,404	3,036,646	910,853
Alcohol, Drug Abuse & Mental Health Administration	919,690	398,523	516,344	4,823
Centers for Disease Control	130,790	-	130,790	-
Food & Drug Administration	125,500	-	125,500	-
Health Care Financing Administration	36,000	-	36,000	-
Health Resources and Services Admin	10,495	1,131	9,364	-
Human Development Services	124,038	-	11,854	112,184
National Institutes of Health	7,472,500	4,501,100	2,178,800	792,600
Office of Assistant Secretary for Health	47,296	39,650	6,400	1,246
Office of the Secretary	5,017	-	5,017	-
Social Security Administration	16,577	-	16,577	-
Department of Housing and Urban Development	48,410	-	17,713	30,697
Department of the Interior, total	489,143	191,099	261,116	36,928
Bureau of Land Management	5,000	1,300	3,000	700
Bureau of Mines	77,722	32,144	38,631	6,947
Bureau of Reclamation	6,800	47	6,054	699
Geological Survey	305,099	152,608	134,825	17,666
Mineral Management Service	2,526	-	2,526	-
National Park Service	22,750	-	22,750	-
Office of the Secretary	700	-	-	700
Office of Surface Mining Reclamation and Enforcement	846	-	830	16
United States Fish and Wildlife Service	67,700	5,000	52,500	10,200
Department of Justice, total	41,499	6,083	12,254	23,162
Drug Enforcement Administration	5,000	-	500	4,500
Federal Bureau of Investigation	6,601	-	-	6,601
Federal Prison System	4,588	-	1,800	2,788
Immigration and Naturalization Service	400	-	400	-
Office of Justice Programs	24,910	6,083	9,554	9,273
Department of Labor, total	43,029	291	26,344	16,394
Bureau of Labor Statistics	7,200	-	7,200	-
Employment Standards Administration	221	-	221	-
Employment and Training Administration	19,217	291	6,402	12,524
Labor-Management Relations & Cooperative Programs	70	-	70	-

Continued on next page

Table C-6. Federal obligations for total research and development, by agency and character of work: fiscal year 1991 (est.) --Continued

[Dollars in thousands]

Agency and subdivision	Total	Research		Development
		Basic	Applied	
Occupational Safety and Health Administration	4,125	-	4,125	-
Office of Pension & Welfare Benefits	2,580	-	2,580	-
Office of the Secretary	9,131	-	5,431	3,700
Pension Benefit Guarantee Corporation	485	-	315	170
Department of State, total	4,525	3,319	1,206	-
Departmental funds	4,525	3,319	1,206	-
Department of Transportation, total	390,171	-	129,236	260,935
Coast Guard	23,000	-	6,070	16,930
Federal Aviation Administration	205,321	-	31,600	173,721
Federal Highway Administration	105,621	-	51,544	54,077
Federal Railroad Administration	15,484	-	12,384	3,100
National Highway Traffic Safety Administration	29,640	-	25,449	4,191
Office of the Secretary	7,225	-	1,589	5,636
Research and Special Programs Administration	2,280	-	600	1,680
Urban Mass Transportation Administration	1,600	-	-	1,600
Department of the Treasury, total	27,902	3,487	15,310	9,105
Bureau of Engraving and Printing	2,624	127	1,071	1,426
Internal Revenue Service	16,800	3,360	13,104	336
Office of Protective Research	485	-	485	-
United States Customs Service	7,993	-	650	7,343
Department of Veterans Affairs	211,500	15,200	175,100	21,200
Other agencies				
Advisory Commission on Intergovernmental Relations	1,385	-	1,385	-
Agency for International Development	218,516	1,556	164,273	52,687
Appalachian Regional Commission	1,000	-	1,000	-
Consumer Product Safety Commission	766	-	395	371
Environmental Protection Agency	442,406	97,602	265,062	79,742
Federal Communications Commission	1,309	-	1,309	-
Office of Thrift Supervision 2/	6,360	-	6,360	-
Federal Trade Commission	477	-	477	-
General Services Administration	130	-	130	-
International Trade Commission	10,500	-	10,500	-
Library of Congress	10,808	901	2,171	7,736
National Aeronautics and Space Administration	8,322,050	1,803,300	1,969,825	4,548,925
National Archives	631	216	335	80
National Science Foundation	1,983,352	1,853,209	130,143	-
Nuclear Regulatory Commission	116,183	-	116,183	-
Smithsonian Institution	100,145	100,145	-	-
Tennessee Valley Authority	49,865	1,999	9,788	38,078
United States Arms Control and Disarmament Agency	2,000	-	2,000	-
United States Information Agency	400	-	400	-

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-7. Federal obligations for total research and development, by agency and performer: fiscal year 1989

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	61,405.8	15,120.9	28,547.9	1,960.0	8,672.0	3,497.1	1,999.1	522.0	167.4	919.4
Departments										
Department of Agriculture, total	1,038.3	689.0	5.9	-	327.8	.5	9.1	-	1.7	4.3
Agricultural Cooperative Service	2.8	2.6	-	-	.2	-	-	-	-	-
Agricultural Marketing Service 2/	1.5	1.4	-	-	*	-	.1	-	-	-
Agricultural Research Service	523.5	490.4	-	-	26.2	-	3.5	-	.1	3.3
Animal & Plant Health Inspection Svc	7.4	6.8	-	-	.5	-	*	-	-	-
Cooperative State Research Service	307.3	14.2	3.9	-	283.6	.5	3.9	-	1.1	-
Economic Research Service	49.5	47.8	-	-	1.7	-	-	-	-	-
Federal Grain Inspection Service	1.1	.8	-	-	.2	*	.1	-	-	-
Forest Service	131.4	115.4	.5	-	13.5	-	1.5	-	.5	*
Human Nutrition Information Service	8.4	5.7	1.4	-	1.3	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	2.9	2.6	-	-	.3	-	-	-	-	-
Off of Internat'l Cooperation & Development	2.5	1.2	-	-	.2	-	*	-	-	1.0
Department of Commerce, total	397.9	324.6	22.3	-	42.9	.1	2.0	-	5.8	.1
Bureau of the Census	4.9	4.0	-	-	1.0	-	-	-	-	-
Economic Development Administration	1.0	.1	-	-	.7	-	.2	-	-	-
Nat'l Institute of Standards & Tech	115.5	107.7	.9	-	6.6	.1	.2	-	-	.1
Nat'l Oceanic & Atmospheric Admin	268.6	205.1	21.4	-	34.7	-	1.7	-	5.8	*
Nat'l Telecomm & Information Admin	7.8	7.8	-	-	-	-	-	-	-	-
Department of Defense, total	37,576.9	9,295.4	24,734.4	308.9	1,188.7	686.0	198.8	391.5	3.7	769.5
Department of the Army	5,659.3	1,915.6	3,415.6	18.0	123.1	135.9	24.6	8.2	-	18.4
Department of the Navy	9,666.1	3,057.6	5,803.1	177.7	425.9	7.4	83.3	49.8	2.9	58.5
Department of the Air Force	15,237.4	2,648.1	11,494.0	2.9	183.4	35.7	25.1	215.9	-	632.2
Defense agencies	6,858.9	1,622.7	3,961.4	110.3	455.6	506.2	65.7	108.9	*	28.1
Test and Evaluation, Deputy under Secretary Defense	140.7	51.1	48.5	-	.8	.9	-	6.3	.8	32.4
Director, Operational Test and Evaluation	14.4	.3	11.8	-	-	-	-	2.4	-	-
Department of Education	159.1	14.9	10.3	-	100.0	-	30.6	-	3.2	.1
Department of Energy	5,192.6	248.1	650.6	1,587.7	453.7	2,033.3	108.1	107.2	1.8	2.2
Dept of Hlth & Human Services, total	7,902.8	1,528.7	331.9	15.5	4,641.2	27.9	1,207.1	8.8	93.0	48.6
Alcohol, Drug Abuse & Mental Hlth Admin	695.7	174.1	20.4	-	408.4	-	62.9	-	25.3	4.6
Centers for Disease Control	117.8	72.2	4.4	-	22.1	-	18.8	-	.3	-
Food & Drug Administration	99.0	91.8	-	-	5.1	-	2.1	-	-	-
Health Care Financing Admin	49.1	1.0	14.6	-	11.3	-	21.0	-	.9	.4
Health Resources and Services Administration	10.5	2.7	-	-	5.0	-	1.1	-	1.6	-
Human Development Services	101.7	2.9	1.3	-	15.5	-	70.0	-	11.9	*
National Institutes of Health	6,778.3	1,170.8	282.6	15.5	4,156.9	27.9	1,020.6	8.8	51.8	43.3
Office of Asst't Secy for Health	27.2	8.6	6.2	-	9.6	-	2.4	-	.2	.2
Office of the Secretary	7.8	1.3	2.0	-	3.5	-	1.0	-	-	-
Social Security Administration	15.8	3.3	.5	-	3.7	-	7.3	-	1.0	.2
Dept of Housing & Urban Development	18.0	12.8	4.0	-	*	-	1.2	-	-	-
Department of the Interior, total	469.0	394.3	26.6	3.7	42.0	-	.1	-	1.9	.5
Bureau of Land Management	3.0	2.4	-	-	.6	-	-	-	-	-
Bureau of Mines	98.7	67.1	15.2	3.6	12.6	-	-	-	.2	-
Bureau of Reclamation	4.2	3.7	-	-	.5	-	-	-	-	-
Geological Survey	279.9	249.1	10.9	-	18.2	-	*	-	1.7	-
Mineral Management Service	2.2	1.3	.1	.1	.2	-	.1	-	-	.5
National Park Service	19.4	14.3	-	-	5.1	-	*	-	-	-
Office of the Secretary	.4	*	.4	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	.7	*	-	-	.7	-	*	-	-	-
Us Fish & Wildlife Service	60.6	56.5	-	-	4.1	-	-	-	-	-
Department of Justice, total	38.2	11.5	6.3	-	5.8	.1	7.3	.5	6.5	.1
Drug Enforcement Administration	2.7	.4	1.5	-	.2	.1	-	.5	-	-
Federal Bureau of Investigation	7.7	7.7	-	-	-	-	-	-	-	-
Federal Prison System	5.1	2.0	.2	-	.1	-	.3	-	2.6	-
Immigration & Naturalization Svc	.1	*	*	-	-	-	-	-	-	-
Office of Justice Programs	22.5	1.4	4.6	-	5.5	-	7.0	-	3.9	.1
Department of Labor, total	35.4	5.3	8.1	-	6.7	-	7.0	-	8.2	-
Bureau of Labor Statistics	7.0	1.2	-	-	5.8	-	-	-	-	-
Employment Standards Administration	.1	.1	-	-	-	-	-	-	-	-
Employment and Training Admin	15.7	.7	2.6	-	.1	-	5.1	-	7.2	-
Labor-Management Relations & Cooperative Programs	.3	*	-	-	.3	-	-	-	-	-

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Table C-7. Federal obligations for total research and development, by agency and performer: fiscal year 1989--Continued

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4.5	0.3	4.2	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	1.4	.4	.5	-	-	-	0.5	-	-	-
Office of the Secretary	6.1	2.3	.8	-	0.5	-	1.4	-	1.0	-
Pension Benefit Guarantee Corporation	.3	.3	-	-	-	-	-	-	-	-
Department of State, total	4.7	.3	.1	-	1.2	-	3.1	-	-	*
Departmental funds	4.7	.3	.1	-	1.2	-	3.1	-	-	*
Department of Transportation, total ..	302.6	162.7	84.2	*	20.7	0.1	14.0	-	19.5	1.4
Coast Guard	17.9	12.4	4.9	-	.6	-	-	-	-	-
Federal Aviation Administration	146.8	122.9	15.6	-	.9	-	7.4	-	-	-
Federal Highway Administration	90.3	3.3	53.4	*	16.1	-	.3	-	16.3	.8
Federal Railroad Administration	9.0	4.5	.6	-	.1	-	3.8	-	-	-
Nat'l Highway Traffic Safety Admin .	29.7	13.4	8.0	-	2.0	.1	2.5	-	3.2	.6
Office of the Secretary	5.5	3.6	1.7	-	.2	-	-	-	-	-
Research & Special Programs Admin ..	2.0	2.0	*	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1.4	.6	-	-	.8	-	-	-	-	-
Department of the Treasury, total	25.6	12.3	12.9	-	.2	.2	-	-	-	-
Bureau of Engraving and Printing	1.7	1.5	-	-	-	.2	-	-	-	-
Internal Revenue Service	14.4	10.4	3.8	-	.2	-	-	-	-	-
Office of Protective Research	.6	.2	.4	-	-	-	-	-	-	-
United States Customs Service	6.8	.2	6.6	-	-	-	-	-	-	-
United States Mint	2.0	*	2.0	-	-	-	-	-	-	-
Department of Veterans Affairs	234.7	231.8	-	-	2.3	-	.6	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1.1	1.1	-	-	-	-	-	-	-	-
Agency for Internat'l Development	279.1	10.8	15.9	-	65.3	-	110.5	-	-	76.7
Appalachian Regional Commission	.8	.8	-	-	-	-	-	-	-	-
Consumer Product Safety Commission	1.3	.7	.5	-	.1	-	-	-	-	-
Environmental Protection Agency	380.3	111.2	142.5	-	80.5	.2	31.1	-	14.8	-
Federal Communications Commission	1.1	1.1	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/	4.1	3.9	.2	-	*	-	-	-	-	-
Federal Trade Commission	.4	.4	-	-	-	-	-	-	-	-
General Services Administration	.5	.5	-	-	-	-	-	-	-	-
International Trade Commission	8.7	8.7	-	-	-	-	-	-	-	-
Library of Congress	8.0	8.0	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	5,393.5	1,733.4	2,425.9	-	433.7	630.1	149.4	3.1	5.8	12.1
National Archives	.3	.3	-	-	-	-	-	-	-	-
National Science Foundation	1,670.4	165.7	57.1	0.5	1,253.7	95.3	94.6	.4	1.5	1.6
Nuclear Regulatory Commission	114.8	22.9	7.4	43.6	4.3	22.0	1.9	10.5	-	2.2
Smithsonian Institution	80.2	80.2	-	-	-	-	-	-	-	-
Tennessee Valley Authority	62.6	38.9	-	-	.9	-	22.7	-	-	-
US Arms Control & Disarmament Agency .	2.8	.5	.8	*	*	1.3	-	.1	-	-
United States Information Agency	.1	.1	-	-	-	-	-	-	-	-

* Indicates amount less than $50,000.

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-8. Federal obligations for total research and development, by agency and performer: fiscal year 1990 (est.)

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	62,320.1	16,094.1	28,853.9	2,053.6	8,747.9	3,410.3	2,183.6	444.7	174.5	357.4
Departments										
Department of Agriculture, total	1,103.6	736.5	6.3	-	345.5	.5	9.4	-	1.7	3.7
Agricultural Cooperative Service	2.8	2.8	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1.6	1.6	-	-	-	-	-	-	-	-
Agricultural Research Service	546.9	512.9	-	-	27.4	-	3.6	-	.1	2.8
Animal & Plant Health Inspection Svc	7.8	7.3	-	-	.4	-	.1	-	-	-
Cooperative State Research Service	324.9	14.7	4.1	-	300.2	.5	4.3	-	1.1	-
Economic Research Service	51.0	50.5	-	-	.6	-	-	-	-	-
Federal Grain Inspection Service	1.3	.7	-	-	.5	-	*	-	-	-
Forest Service	152.9	136.1	.5	-	14.5	-	1.3	-	.5	*
Human Nutrition Information Service	9.0	5.8	1.7	-	1.5	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	3.1	2.9	-	-	.2	-	-	-	-	-
Off of Internat'l Cooperation & Development	2.3	1.2	-	-	.2	-	-	-	-	.9
Department of Commerce, total	424.0	335.7	32.0	-	47.3	.1	3.0	-	5.8	.1
Bureau of the Census	5.0	4.7	-	-	.3	-	-	-	-	-
Economic Development Administration	1.2	.4	-	-	.6	-	.2	-	-	-
Nat'l Institute of Standards & Tech	133.0	112.6	9.1	-	10.1	.1	1.1	-	-	.1
Nat'l Oceanic & Atmospheric Admin	276.9	210.1	23.0	-	36.4	-	1.7	-	5.8	*
Nat'l Telecomm & Information Admin	8.0	8.0	-	-	-	-	-	-	-	-
Department of Defense, total	35,899.1	9,466.7	23,809.7	276.5	1,048.9	620.0	145.1	299.6	2.0	230.6
Department of the Army	5,592.5	2,061.4	3,222.4	23.2	115.2	124.9	25.7	5.8	-	13.8
Department of the Navy	9,588.9	3,083.9	5,788.4	137.2	377.7	7.2	45.0	66.4	1.9	81.2
Department of the Air Force	13,719.5	2,789.1	10,581.9	2.9	188.5	26.0	18.9	103.5	-	8.8
Defense agencies	6,743.6	1,478.4	4,076.3	113.2	363.3	461.9	55.4	114.9	.1	80.1
Test and Evaluation, Deputy under Secretary Defense	184.2	53.6	79.2	-	4.3	-	-	.4	-	46.7
Director, Operational Test and Evaluation	70.5	.3	61.7	-	-	-	-	8.5	-	-
Department of Education	181.0	16.9	11.1	-	115.0	-	34.5	-	3.5	-
Department of Energy	5,697.5	361.7	869.3	1,716.1	441.4	2,041.4	140.6	120.8	2.5	3.7
Dept of Hlth & Human Services, total	8,457.4	1,756.8	385.4	17.8	4,704.0	31.9	1,388.4	10.1	107.1	55.8
Alcohol, Drug Abuse & Mental Hlth Admin	820.5	209.1	24.4	-	478.5	-	72.0	-	30.6	5.8
Centers for Disease Control	125.9	77.6	5.0	-	23.2	-	19.?	-	.4	-
Food & Drug Administration	110.0	102.8	-	-	5.1	-	2.1	-	-	-
Health Care Financing Admin	50.0	1.0	13.7	-	8.0	-	26.3	-	.5	.5
Health Resources and Services Administration	10.5	2.7	-	-	5.0	-	1.1	-	1.6	-
Human Development Services	119.3	3.6	1.9	-	19.4	-	79.6	-	14.8	*
National Institutes of Health	7,141.3	1,339.1	323.3	17.8	4,143.3	31.9	1,167.1	10.1	59.2	49.4
Office of Asst't Secy for Health	56.9	15.9	15.6	-	18.9	-	6.6	-	-	.1
Office of the Secretary	5.0	1.4	1.6	-	1.0	-	1.1	-	-	-
Social Security Administration	18.0	3.5	.1	-	1.6	-	12.8	-	.1	-
Dept of Housing & Urban Development	21.0	13.1	5.5	-	.1	-	2.2	-	-	-
Department of the Interior, total	504.4	424.9	29.1	4.1	43.8	-	.1	-	2.0	.5
Bureau of Land Management	2.8	2.5	-	-	.4	-	-	-	-	-
Bureau of Mines	104.8	73.3	17.7	3.6	10.2	-	-	-	-	-
Bureau of Reclamation	4.7	4.2	-	-	.5	-	-	-	-	-
Geological Survey	300.3	264.7	10.6	.5	22.6	-	-	-	2.0	-
Mineral Management Service	2.0	1.0	.3	.1	.2	-	-	-	-	.5
National Park Service	19.5	14.3	-	-	5.2	-	.1	-	-	-
Office of the Secretary	.5	*	.5	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	.8	*	-	-	.8	-	-	-	-	-
Us Fish & Wildlife Service	69.1	65.0	-	-	4.1	-	-	-	-	-
Department of Justice, total	41.7	9.8	8.2	.6	6.3	-	12.5	-	4.2	-
Drug Enforcement Administration	4.5	.5	3.2	.6	.3	-	-	-	-	-
Federal Bureau of Investigation	5.8	5.8	-	-	-	-	-	-	-	-
Federal Prison System	4.5	1.7	.2	-	.1	-	.1	-	2.4	-
Immigration & Naturalization Svc	.4	*	.4	-	-	-	-	-	-	-
Office of Justice Programs	26.4	1.7	4.5	-	5.9	-	12.4	-	1.8	-
Department of Labor, total	36.5	4.9	8.6	-	7.5	-	7.0	-	8.4	-
Bureau of Labor Statistics	7.1	.5	-	-	6.6	-	-	-	-	-
Employment Standards Administration	.3	.3	-	-	-	-	-	-	-	-
Employment and Training Admin	16.7	.9	2.7	-	.5	-	4.7	-	7.9	-
Labor-Management Relations & Cooperative Programs	.1	*	-	-	.1	-	-	-	-	-

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Table C-8. Federal obligations for total research and development, by agency and performer: fiscal year 1990 (est.)--Continued

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4.1	0.4	3.7	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2.4	.4	1.0	-	-	-	1.0	-	-	-
Office of the Secretary	5.4	2.1	1.0	-	0.4	-	1.4	-	0.6	-
Pension Benefit Guarantee Corporation	.5	.4	.1	-	-	-	-	-	-	-
Department of State, total	4.5	.2	.1	-	1.2	-	3.0	-	-	*
Departmental funds	4.5	.2	.1	-	1.2	-	3.0	-	-	*
Department of Transportation, total ..	369.9	189.3	107.3	-	30.9	0.1	22.3	-	18.4	1.6
Coast Guard	21.0	14.5	6.0	-	.5	-	-	-	-	-
Federal Aviation Administration	215.2	145.1	44.5	-	8.6	-	17.0	-	-	-
Federal Highway Administration	82.2	1.8	45.6	-	18.7	-	-	-	15.4	.6
Federal Railroad Administration	12.5	7.9	1.0	-	.2	-	3.5	-	-	-
Nat'l Highway Traffic Safety Admin .	27.7	12.5	7.3	-	2.0	.1	1.8	-	3.0	1.0
Office of the Secretary	7.1	3.9	2.9	-	.3	-	-	-	-	-
Research & Special Programs Admin ..	2.6	2.6	*	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1.6	1.0	-	-	.6	-	-	-	-	-
Department of the Treasury, total	28.3	14.7	13.4	-	-	.2	-	-	-	-
Bureau of Engraving and Printing ...	3.6	3.4	-	-	-	.2	-	-	-	-
Internal Revenue Service	16.8	10.9	5.9	-	-	-	-	-	-	-
Office of Protective Research	.5	.2	.3	-	-	-	-	-	-	-
United States Customs Service	6.2	.2	6.0	-	-	-	-	-	-	-
United States Mint	1.2	*	1.2	-	-	-	-	-	-	-
Department of Veterans Affairs	239.3	237.0	-	-	2.3	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1.4	1.4	-	-	-	-	-	-	-	-
Agency for Internat'l Development	211.6	7.9	17.8	-	59.3	-	80.0	-	-	46.6
Appalachian Regional Commission	1.0	1.0	-	-	-	-	-	-	-	-
Consumer Product Safety Commission ...	.9	.9	*	-	*	-	-	-	-	-
Environmental Protection Agency	416.7	119.0	181.1	-	79.5	.3	25.1	-	11.8	-
Federal Communications Commission	2.0	2.0	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/.....	5.8	5.8	-	-	-	-	-	-	-	-
Federal Trade Commission	.5	.5	-	-	-	-	-	-	-	-
General Services Administration	.8	.7	.1	-	-	-	-	-	-	-
International Trade Commission	9.6	9.6	-	-	-	-	-	-	-	-
Library of Congress	8.0	8.0	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin ...	6,635.4	2,051.6	3,286.6	-	493.0	599.2	183.9	3.1	5.8	12.2
National Archives	.3	.3	-	-	-	-	-	-	-	-
National Science Foundation	1,765.8	174.7	70.4	0.6	1,317.2	100.2	100.9	.4	1.5	-
Nuclear Regulatory Commission	109.3	25.0	11.4	37.8	4.0	16.3	1.6	10.7	-	2.5
Smithsonian Institution	87.5	87.5	-	-	-	-	-	-	-	-
Tennessee Valley Authority	54.3	29.9	-	-	.5	-	23.9	-	*	-
US Arms Control & Disarmament Agency .	.6	.1	.4	.1	*	*	*	-	-	-
United States Information Agency	.3	*	.3	-	-	-	-	-	-	-

* Indicates amount less than $50,000.

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-9. Federal obligations for total research and development, by agency and performer: fiscal year 1991 (est.)

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	66,107.3	16,396.3	31,511.5	2,062.3	9,190.8	3,653.8	2,301.7	482.2	184.1	324.7
Departments										
Department of Agriculture, total	1,157.6	776.5	6.8	-	363.5	.5	6.0	-	1.5	2.9
Agricultural Cooperative Service	2.8	2.8	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1.7	1.7	-	-	-	-	-	-	-	-
Agricultural Research Service	587.8	551.5	-	-	29.4	-	3.9	-	.1	2.8
Animal & Plant Health Inspection Svc	8.3	7.8	-	-	.3	-	.1	-	-	-
Cooperative State Research Service	335.4	15.3	4.2	-	314.0	.5	.6	-	.8	-
Economic Research Service	56.3	55.7	-	-	.6	-	-	-	-	-
Federal Grain Inspection Service	1.3	.9	-	-	.4	-	-	-	-	*
Forest Service	148.7	130.1	.5	-	16.0	-	1.5	-	.5	*
Human Nutrition Information Service	10.7	6.4	2.0	-	2.3	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	3.2	3.0	-	-	.2	-	-	-	-	-
Off of Internat'l Cooperation & Development	1.5	1.2	-	-	.2	-	-	-	-	-
Department of Commerce, total	425.8	349.1	37.2	-	36.6	.1	2.6	-	-	.1
Bureau of the Census	4.8	4.5	-	-	.3	-	-	-	-	-
Nat'l Institute of Standards & Tech	145.1	126.8	11.5	-	5.4	.1	1.2	-	-	.1
Nat'l Oceanic & Atmospheric Admin	267.5	209.6	25.7	-	30.9	-	1.4	-	-	*
Nat'l Telecomm & Information Admin	8.3	8.3	-	-	-	-	-	-	-	-
Department of Defense, total	36,918.0	8,988.2	25,353.1	287.4	1,069.1	624.0	109.9	312.8	1.4	172.0
Department of the Army	6,227.5	2,200.3	3,695.5	11.3	113.9	160.9	27.4	5.4	-	12.9
Department of the Navy	9,357.5	3,088.6	5,542.3	159.4	394.8	6.6	26.2	69.1	1.4	69.1
Department of the Air Force	13,583.0	1,533.4	11,665.0	2.9	204.2	33.4	21.5	114.8	-	7.7
Defense agencies	7,348.4	2,078.3	4,201.9	113.9	355.6	418.1	34.8	108.5	*	37.2
Test and Evaluation, Deputy under Secretary Defense	322.6	87.1	181.0	-	.7	5.0	-	3.6	-	45.2
Director, Operational Test and Evaluation	79.1	.5	67.3	-	-	-	-	11.3	-	-
Department of Education	187.3	21.1	12.5	-	118.5	-	30.9	.9	3.4	-
Department of Energy	6,006.3	427.3	964.0	1,709.6	429.1	2,164.4	165.2	142.0	1.4	3.4
Dept of Hlth & Human Services, total	8,887.9	1,878.9	398.2	18.5	4,946.2	33.4	1,427.8	10.4	115.3	59.1
Alcohol, Drug Abuse & Mental Hlth Admin	919.7	241.5	29.2	-	529.5	-	80.3	-	32.5	6.8
Centers for Disease Control	130.8	87.5	4.0	-	21.4	-	17.6	-	.3	-
Food & Drug Administration	125.5	118.3	-	-	5.1	-	2.1	-	-	-
Health Care Financing Admin	36.0	.9	15.5	-	8.6	-	9.7	-	.9	.4
Health Resources and Services Administration	10.5	2.8	-	-	5.0	-	1.1	-	1.6	-
Human Development Services	124.0	3.6	1.6	-	20.3	-	80.3	-	18.2	*
National Institutes of Health	7,472.5	1,401.6	330.9	18.5	4,339.0	33.4	1,219.1	10.4	61.8	51.7
Office of Asst't Secy for Health	47.3	17.9	9.5	-	14.3	-	5.6	-	-	.1
Office of the Secretary	5.0	1.4	1.6	-	1.0	-	1.1	-	-	-
Social Security Administration	16.6	3.5	-	-	1.8	-	11.0	-	.1	.2
Dept of Housing & Urban Development	48.4	14.9	15.7	-	.2	-	17.6	-	-	-
Department of the Interior, total	489.1	435.0	16.6	2.9	31.8	-	.2	-	1.9	.8
Bureau of Land Management	5.0	3.6	-	-	1.4	-	-	-	.1	-
Bureau of Mines	77.7	69.1	.3	2.7	5.6	-	-	-	-	-
Bureau of Reclamation	6.8	5.8	.3	-	.8	-	-	-	-	-
Geological Survey	305.1	277.2	15.1	-	11.0	-	-	-	1.8	-
Mineral Management Service	2.5	.8	.4	.2	.4	-	-	-	-	.8
National Park Service	22.8	15.8	-	-	6.8	-	.2	-	-	-
Office of the Secretary	.7	*	.7	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	.8	*	-	-	.8	-	-	-	-	-
Us Fish & Wildlife Service	67.7	62.8	-	-	4.9	-	-	-	-	-
Department of Justice, total	41.5	10.9	9.4	.8	5.6	-	10.4	-	4.4	-
Drug Enforcement Administration	5.0	.6	3.4	.8	.2	-	-	-	-	-
Federal Bureau of Investigation	6.6	6.6	-	-	-	-	-	-	-	-
Federal Prison System	4.6	1.8	.2	-	.1	-	.1	-	2.4	-
Immigration & Naturalization Svc	.4	*	.4	-	-	-	-	-	-	-
Office of Justice Programs	24.9	1.9	5.5	-	5.3	-	10.3	-	2.0	-
Department of Labor, total	43.0	5.1	11.0	-	8.5	-	8.8	-	9.7	-
Bureau of Labor Statistics	7.2	.6	-	-	6.6	-	-	-	-	-
Employment Standards Administration	.2	.2	-	-	-	-	-	-	-	-
Employment and Training Admin	19.2	.6	3.2	-	.7	-	5.9	-	8.8	-
Labor-Management Relations & Cooperative Programs	.1	*	-	-	.1	-	-	-	-	-

Continued on next page

Table C-9. Federal obligations for total research and development, by agency and performer: fiscal year 1991 (est.)--Continued

[Dollars in millions]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4.1	0.4	3.7	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2.6	.5	1.1	-	-	-	1.1	-	-	-
Office of the Secretary	9.1	2.4	2.9	-	1.1	-	1.9	-	0.8	-
Pension Benefit Guarantee Corporation	.5	.4	.1	-	-	-	-	-	-	-
Department of State, total	4.5	.3	.1	-	1.2	-	3.0	-	-	*
Departmental funds	4.5	.3	.1	-	1.2	-	3.0	-	-	*
Department of Transportation, total ..	390.2	183.3	127.0	-	24.5	0.7	28.2	-	24.9	1.6
Coast Guard	23.0	15.9	6.6	-	.5	-	-	-	-	-
Federal Aviation Administration	205.3	129.2	53.7	-	.1	.6	21.7	-	-	-
Federal Highway Administration	105.6	6.7	55.9	-	21.1	-	-	-	21.4	.6
Federal Railroad Administration	15.5	8.9	1.8	-	.1	-	4.5	-	.3	-
Nat'l Highway Traffic Safety Admin .	29.6	14.4	6.9	-	2.0	.1	2.0	-	3.2	1.0
Office of the Secretary	7.2	5.2	1.9	-	.2	-	-	-	-	-
Research & Special Programs Admin ..	2.3	2.0	.2	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1.6	1.0	-	-	.6	-	-	-	-	-
Department of the Treasury, total	27.9	13.8	13.7	-	.2	.2	-	-	-	-
Bureau of Engraving and Printing ...	2.6	2.4	-	-	-	.2	-	-	-	-
Internal Revenue Service	16.8	10.9	5.7	-	.2	-	-	-	-	-
Office of Protective Research	.5	.2	.3	-	-	-	-	-	-	-
United States Customs Service	8.0	.3	7.7	-	-	-	-	-	-	-
Department of Veterans Affairs	211.5	209.2	-	-	2.3	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1.4	1.4	-	-	-	-	-	-	-	-
Agency for Internat'l Development	218.5	9.0	-	-	46.4	-	92.1	-	-	71.0
Appalachian Regional Commission	1.0	1.0	-	-	-	-	-	-	-	-
Consumer Product Safety Commission ...	.8	.8	-	-	-	-	-	-	-	-
Environmental Protection Agency	442.4	129.3	182.0	-	90.8	.4	27.2	-	12.8	-
Federal Communications Commission	1.3	1.3	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/.....	6.4	6.4	-	-	-	-	-	-	-	-
Federal Trade Commission	.5	.5	-	-	-	-	-	-	-	-
General Services Administration	.1	.1	-	-	-	-	-	-	-	-
International Trade Commission	10.5	10.5	-	-	-	-	-	-	-	-
Library of Congress	10.8	10.8	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin ...	8,322.1	2,573.0	4,262.6	-	533.0	701.8	230.6	3.1	5.8	12.2
National Archives	.6	.4	-	-	-	.3	-	-	-	-
National Science Foundation	1,983.4	187.0	89.9	0.7	1,477.5	110.9	115.2	.4	1.7	-
Nuclear Regulatory Commission	116.2	25.4	10.0	42.1	5.2	17.0	2.1	12.6	-	1.7
Smithsonian Institution	100.1	100.1	-	-	-	-	-	-	-	-
Tennessee Valley Authority	49.9	25.3	-	-	.7	-	23.9	-	-	-
US Arms Control & Disarmament Agency .	2.0	.3	1.3	.2	*	.1	-	.1	-	-
United States Information Agency	.4	*	.4	-	-	-	-	-	-	-

* Indicates amount less than $50,000.

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-10. Federal obligations for research, development, and R&D plant to federally funded research and development centers (FFRDCs), by agency: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Research and development				R&D plant			
	Total, all FFRDCs	FFRDC's admin by industrial firms	FFRDC's admin by univ & col	FFRDC's admin by other nonprofit insts	Total, all FFRDCs	FFRDC's admin by industrial firms	FFRDC's admin by univ & col	FFRDC's admin by other nonprofit insts
Total, all agencies	5,979,003	1,960,001	3,497,050	521,952	710,574	212,261	489,913	8,400
Departments								
Department of Agriculture, total	523	-	523	-	-	-	-	-
Cooperative State Research Service	493	-	493	-	-	-	-	-
Federal Grain Inspection Service	30	-	30	-	-	-	-	-
Department of Commerce, total	107	-	107	-	-	-	-	-
Nat'l Institute of Standards & Tech.	107	-	107	-	-	-	-	-
Department of Defense, total	1,386,369	308,885	686,018	391,466	33,390	7,628	25,762	-
Department of the Army	162,085	17,963	135,929	8,193	-	-	-	-
Department of the Navy	234,892	177,687	7,384	49,821	-	-	-	-
Department of the Air Force	254,536	2,928	35,675	215,933	24,890	2,928	21,962	-
Defense agencies	725,312	110,307	506,154	108,851	8,500	4,700	3,800	-
Test and Evaluation, Deputy Under Secretary Defense	7,174	-	876	6,298	-	-	-	-
Director, Operational Test and Evaluation	2,370	-	-	2,370	-	-	-	-
Department of Energy	3,728,138	1,587,728	2,033,256	107,154	650,401	204,633	437,368	8,400
Dept of Hlth & Human Services, total	52,257	15,505	27,915	8,837	-	-	-	-
National Institutes of Health	52,257	15,505	27,915	8,837	-	-	-	-
Department of the Interior, total	3,675	3,675	-	-	-	-	-	-
Bureau of Mines	3,550	3,550	-	-	-	-	-	-
Mineral Management Service	125	125	-	-	-	-	-	-
Department of Justice, total	572	-	72	500	-	-	-	-
Drug Enforcement Administration	572	-	72	500	-	-	-	-
Department of Transportation, total	149	49	100	-	-	-	-	-
Federal Highway Administration	49	49	-	-	-	-	-	-
Nat'l Highway Traffic Safety Admin	100	-	100	-	-	-	-	-
Department of the Treasury, total	175	-	175	-	-	-	-	-
Bureau of Engraving and Printing	175	-	175	-	-	-	-	-
Other agencies								
Environmental Protection Agency	162	-	162	-	-	-	-	-
National Aeronautics & Space Admin	633,153	-	630,070	3,083	11,029	-	11,029	-
National Science Foundation	96,158	511	95,270	377	15,754	-	15,754	-
Nuclear Regulatory Commission	76,130	43,623	22,047	10,460	-	-	-	-
US Arms Control & Disarmament Agency	1,435	25	1,335	75	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-11. Federal obligations for research, development, and R&D plant to federally funded research and development centers (FFRDCs), by agency: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Research and development				R&D plant			
	Total, all FFRDCs	FFRDCs admin by industrial firms	FFRDCs admin by univ & col	FFRDCs admin by other nonprofit insts	Total, all FFRDCs	FFRDCs admin by industrial firms	FFRDCs admin by univ & col	FFRDCs admin by other nonprofit insts
Total, all agencies	5,908,575	2,053,568	3,410,302	444,705	958,250	235,498	711,393	11,359
Departments								
Department of Agriculture, total	493	-	493	-	-	-	-	-
Cooperative State Research Service	493	-	493	-	-	-	-	-
Department of Commerce, total	110	-	110	-	-	-	-	-
Nat'l Institute of Standards & Tech	110	-	110	-	-	-	-	-
Department of Defense, total	1,196,175	276,539	620,048	299,588	102,000	20,300	81,700	-
Department of the Army	153,966	23,225	124,912	5,829	-	-	-	-
Department of the Navy	210,887	137,226	7,214	66,447	-	-	-	-
Department of the Air Force	132,418	2,899	26,009	103,510	92,000	10,300	81,700	-
Defense agencies	690,009	113,189	461,913	114,907	10,000	10,000	-	-
Test and Evaluation, Deputy Under Secretary Defense	395	-	-	395	-	-	-	-
Director, Operational Test and Evaluation	8,500	-	-	8,500	-	-	-	-
Department of Energy	3,878,298	1,716,079	2,041,386	120,833	768,252	215,198	541,695	11,359
Dept of Hlth & Human Services, total	59,790	17,798	31,886	10,106	-	-	-	-
National Institutes of Health	59,790	17,798	31,886	10,106	-	-	-	-
Department of the Interior, total	4,144	4,144	-	-	-	-	-	-
Bureau of Mines	3,593	3,593	-	-	-	-	-	-
Geological Survey	461	461	-	-	-	-	-	-
Mineral Management Service	90	90	-	-	-	-	-	-
Department of Justice, total	600	600	-	-	-	-	-	-
Drug Enforcement Administration	600	600	-	-	-	-	-	-
Department of Transportation, total	100	-	100	-	-	-	-	-
Nat'l Highway Traffic Safety Admin	100	-	100	-	-	-	-	-
Department of the Treasury, total	218	-	218	-	-	-	-	-
Bureau of Engraving and Printing	218	-	218	-	-	-	-	-
Other agencies								
Environmental Protection Agency	250	-	250	-	-	-	-	-
National Aeronautics & Space Admin	602,321	-	599,236	3,085	36,362	-	36,362	-
National Science Foundation	101,196	591	100,228	377	51,636	-	51,636	-
Nuclear Regulatory Commission	64,795	37,757	16,322	10,716	-	-	-	-
US Arms Control & Disarmament Agency	85	60	25	-	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-12. Federal obligations for research, development, and R&D plant to federally funded research and development centers (FFRDCs), by agency: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Research and development				R&D plant			
	Total, all FFRDCs	FFRDCs admin by industrial firms	FFRDCs admin by univ & col	FFRDCs admin by other nonprofit insts	Total, all FFRDCs	FFRDCs admin by industrial firms	FFRDCs admin by univ & col	FFRDCs admin by other nonprofit insts
Total, all agencies	6,198,181	2,062,268	3,653,753	482,160	1,006,629	243,607	745,797	17,225
Departments								
Department of Agriculture, total	493	-	493	-	-	-	-	-
Cooperative State Research Service	493	-	493	-	-	-	-	-
Department of Commerce, total	113	-	113	-	-	-	-	-
Nat'l Institute of Standards & Tech.	113	-	113	-	-	-	-	-
Department of Defense, total	1,224,154	287,441	623,953	312,760	64,300	12,600	51,700	-
Department of the Army	177,607	11,308	160,868	5,431	-	-	-	-
Department of the Navy	235,068	159,362	6,582	69,124	-	-	-	-
Department of the Air Force	151,148	2,905	33,427	114,816	62,000	10,300	51,700	-
Defense agencies	640,438	113,866	418,076	108,496	2,300	2,300	-	-
Test and Evaluation, Deputy Under Secretary Defense	8,593	-	5,000	3,593	-	-	-	-
Director, Operational Test and Evaluation	11,300	-	-	11,300	-	-	-	-
Department of Education	876	-	-	876	-	-	-	-
Department of Energy	4,015,978	1,709,613	2,164,398	141,967	802,707	231,007	554,475	17,225
Dept of Hlth & Human Services, total	62,372	18,534	33,414	10,424	-	-	-	-
National Institutes of Health	62,372	18,534	33,414	10,424	-	-	-	-
Department of the Interior, total	2,850	2,850	-	-	-	-	-	-
Bureau of Mines	2,700	2,700	-	-	-	-	-	-
Mineral Management Service	150	150	-	-	-	-	-	-
Department of Justice, total	800	800	-	-	-	-	-	-
Drug Enforcement Administration	800	800	-	-	-	-	-	-
Department of Transportation, total	700	-	700	-	-	-	-	-
Federal Aviation Administration	600	-	600	-	-	-	-	-
Nat'l Highway Traffic Safety Admin	100	-	100	-	-	-	-	-
Department of the Treasury, total	218	-	218	-	-	-	-	-
Bureau of Engraving and Printing	218	-	218	-	-	-	-	-
Other agencies								
Environmental Protection Agency	350	-	350	-	-	-	-	-
National Aeronautics & Space Admin	704,909	-	701,824	3,085	115,413	-	115,413	-
National Archives	250	-	250	-	-	-	-	-
National Science Foundation	112,022	698	110,946	378	24,209	-	24,209	-
Nuclear Regulatory Commission	71,746	42,132	16,994	12,620	-	-	-	-
US Arms Control & Disarmament Agency	350	200	100	50	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-13. Federal obligations for research and development to federally funded research and development centers (FFRDCs), by individual FFRDC and agency: fiscal year 1989

[Dollars in thousands]

Federally funded research and development centers	Total	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	National Aero-Nautics & Space Admin	National Science Foundation	Other
Total, all FFRDCs	5,979,003	107	1,386,369	3,728,138	52,257	633,153	96,158	82,821
FFRDCs admin by industrial firms	1,960,001	-	308,885	1,587,728	15,505	-	511	47,372
Bettis Atomic Power Lab	358,097	-	112,197	245,900	-	-	-	-
Energy Tech Engineering Ctr	10,470	-	-	10,470	-	-	-	-
Frederick Cancer Rsch Center	13,957	-	-	-	13,957	-	-	-
Hanford Engineering Dev Lab	93,045	-	1,005	91,920	-	-	-	120
Idaho Nat'l Engineering Lab	120,067	-	9,041	92,287	-	-	-	18,739
Knolls Atomic Power Lab	311,642	-	56,142	255,500	-	-	-	-
Oak Ridge National Lab	277,707	-	26,610	236,851	1,548	-	511	12,187
Sandia National Laboratories	670,551	-	103,890	550,335	-	-	-	16,326
Savannah River Laboratory	104,465	-	-	104,465	-	-	-	-
FFRDCs admin by univs & cols	3,497,050	107	686,018	2,033,256	27,915	630,070	95,270	24,414
Ames Laboratory	17,588	-	139	17,419	-	-	-	30
Argonne National Laboratory	211,732	-	9,655	195,203	1,231	110	345	5,188
Brookhaven National Lab	214,837	107	8,086	188,162	6,420	-	582	11,480
Continuous Electron Beam Accel Facil	10,817	-	-	10,467	-	-	-	350
E.O. Lawrence Berkeley Lab	142,641	-	14,658	116,389	11,175	100	69	250
E.O. Lawrence Livermore Nat'l Lab	779,275	-	136,513	638,094	2,270	505	33	1,860
Fermilab	160,462	-	25	160,403	-	-	34	-
Jet Propulsion Laboratory	771,362	-	143,608	250	-	627,456	48	-
Lincoln Laboratory	207,930	-	207,930	-	-	-	-	-
Los Alamos National Lab	655,138	-	147,456	497,162	5,474	108	125	4,813
Nat'l Astronomy & Ionosphere Ctr	6,187	-	-	-	-	-	6,187	-
Nat'l Center for Atmospheric Rsch	46,560	-	27	-	-	1,791	44,742	-
Nat'l Optical Astronomy Observatory	24,028	-	-	-	-	-	24,028	-
Nat'l Radio Astronomy Observatory	18,457	-	-	-	-	-	18,457	-
Oak Ridge Associated Universities	12,600	-	51	10,894	592	-	620	443
Plasma Physics Laboratory	90,066	-	-	90,066	-	-	-	-
Software Engineering Institute	17,870	-	17,870	-	-	-	-	-
Stanford Linear Accelerator Ctr	109,500	-	-	108,747	753	-	-	-
FFRDCs admin by other nonprofit insts	521,952	-	391,466	107,154	8,837	3,083	377	11,035
Aerospace Corporation	67,832	-	64,532	213	-	2,793	294	-
Center for Naval Analysis	34,694	-	34,694	-	-	-	-	-
Center for Nuclear Waste Reg. Analyses	1,625	-	-	-	-	-	-	1,625
Inst for Defense Analyses	41,124	-	41,099	-	-	-	-	25
Inhalation Toxic. Res. Institute	8,210	-	-	8,210	-	-	-	-
Logistics Management Institute	1,145	-	1,145	-	-	-	-	-
Mitre Corp - C3 I Division	227,152	-	226,652	-	-	-	-	500
Nat'l Defense Research Institute	21,427	-	21,427	-	-	-	-	-
Pacific Northwest Laboratory	67,622	-	1,813	47,842	8,837	162	83	8,885
Project Air Force (Rand Corp)	232	-	104	-	-	128	-	-
Solar Energy Research Inst	50,889	-	-	50,889	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development:Fiscal Years 1989, 1990, and 1991

Table C-14. Federal Obligations for R&D Plant to federally funded research and development centers (FFRDCs), by individual FFRDC and agency: fiscal year 1989

[Dollars in thousands]

Federally funded research and development centers	Total	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	National Aero-Nautics & Space Admin	National Science Founda-tion	Other
Total, all FFRDCs	710,574	-	33,390	650,401	-	11,029	15,754	-
FFRDCs admin by industrial firms	212,261	-	7,628	204,633	-	-	-	-
Bettis Atomic Power Lab	38,900	-	-	38,900	-	-	-	-
Energy Tech Engineering Ctr	1,529	-	-	1,529	-	-	-	-
Hanford Engineering Dev Lab	16,242	-	-	16,242	-	-	-	-
Idaho Nat'l Engineering Lab	3,720	-	-	3,720	-	-	-	-
Knolls Atomic Power Lab	33,000	-	-	33,000	-	-	-	-
Oak Ridge National Lab	25,386	-	477	24,909	-	-	-	-
Sandia National Laboratories	93,464	-	7,151	86,313	-	-	-	-
Savannah River Laboratory	20	-	-	20	-	-	-	-
FFRDCs admin by univs & cols	489,913	-	25,762	437,368	-	11,029	15,754	-
Ames Laboratory	2,921	-	-	2,921	-	-	-	-
Argonne National Laboratory	35,062	-	-	35,062	-	-	-	-
Brookhaven National Lab	47,085	-	-	47,085	-	-	-	-
Continuous Electron Beam Accel Facil	45,500	-	-	45,500	-	-	-	-
E.O. Lawrence Berkeley Lab	44,373	-	-	44,373	-	-	-	-
E.O. Lawrence Livermore Nat'l Lab	84,969	-	800	84,169	-	-	-	-
Fermilab	42,067	-	-	42,067	-	-	-	-
Jet Propulsion Laboratory	11,029	-	-	-	-	11,029	-	-
Lincoln Laboratory	21,962	-	21,962	-	-	-	-	-
Los Alamos National Lab	105,948	-	3,000	102,948	-	-	-	-
Nat'l Center for Atmospheric Rsch	3,454	-	-	-	-	-	3,454	-
Nat'l Radio Astronomy Observatory	12,300	-	-	-	-	-	12,300	-
Oak Ridge Associated Universities	320	-	-	320	-	-	-	-
Plasma Physics Laboratory	6,913	-	-	6,913	-	-	-	-
Stanford Linear Accelerator Ctr	26,010	-	-	26,010	-	-	-	-
FFRDCs admin by other nonprofit insts	8,400	-	-	8,400	-	-	-	-
Inhalation Toxic. Res. Institute	1,190	-	-	1,190	-	-	-	-
Pacific Northwest Laboratory	4,776	-	-	4,776	-	-	-	-
Solar Energy Research Inst	2,434	-	-	2,434	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development:Fiscal Years 1989, 1990, and 1991

Table C-15. Federal obligations for research, by agency and performer: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	20,765,348	5,981,475	2,875,047	519,840	7,793,146	1,703,426	1,519,652	109,513	121,168	142,081
Departments										
Department of Agriculture, total	1,002,222	654,903	5,854	-	326,227	503	8,900	-	1,738	4,097
Agricultural Cooperative Service	2,821	2,598	-	-	223	-	-	-	-	-
Agricultural Marketing Service 2/	1,254	1,147	-	-	37	-	70	-	-	-
Agricultural Research Service	492,100	461,005	-	-	24,651	-	3,273	-	115	3,056
Animal & Plant Health Inspection Svc	7,354	6,788	-	-	517	-	49	-	-	-
Cooperative State Research Service	307,290	14,225	3,926	-	283,631	493	3,899	-	1,116	-
Economic Research Service	49,508	47,819	-	-	1,689	-	-	-	-	-
Federal Grain Inspection Service	771	453	-	-	229	10	79	-	-	-
Forest Service	127,500	111,467	535	-	13,460	-	1,490	-	507	41
Human Nutrition Information Service	8,395	5,658	1,393	-	1,344	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	2,897	2,621	-	-	276	-	-	-	-	-
Off of Internat'l Cooperation & Development	2,332	1,122	-	-	170	-	40	-	-	1,000
Department of Commerce, total	350,978	298,378	5,786	-	38,806	107	2,011	-	5,780	110
Bureau of the Census	2,982	2,013	-	-	969	-	-	-	-	-
Economic Development Administration	1,007	115	-	-	725	-	167	-	-	-
Nat'l Institute of Standards & Tech	105,557	97,791	835	-	6,573	107	166	-	-	85
Nat'l Oceanic & Atmospheric Admin	234,569	191,596	4,951	-	30,539	-	1,678	-	5,780	25
Nat'l Telecomm & Information Admin	6,863	6,863	-	-	-	-	-	-	-	-
Department of Defense, total	3,656,124	1,359,708	1,177,427	64,906	840,013	95,799	76,157	16,483	2,866	22,765
Department of the Army	823,443	521,069	174,329	5,761	87,446	13,357	12,053	210	-	9,218
Department of the Navy	783,218	377,277	111,380	46,919	213,473	4,405	21,478	350	2,866	5,070
Department of the Air Force	807,401	241,205	370,772	288	165,725	2,159	21,266	-	-	5,986
Defense agencies	1,242,062	220,157	520,946	11,938	373,369	75,878	21,360	15,923	-	2,491
Department of Education	121,962	12,716	5,856	-	82,115	-	18,444	-	2,731	100
Department of Energy	2,431,681	141,130	149,729	393,782	437,020	1,144,557	90,777	71,994	1,263	1,429
Dept of Hlth & Human Services, total	7,088,434	1,380,058	294,476	13,269	4,228,426	25,318	1,018,546	8,097	76,150	44,094
Alcohol, Drug Abuse & Mental Hlth Admin	692,640	171,776	20,359	-	408,430	-	62,186	-	25,309	4,580
Centers for Disease Control	117,785	72,236	4,357	-	22,129	-	18,766	-	297	-
Food & Drug Administration	99,000	91,789	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	49,076	975	14,589	-	11,277	-	20,972	-	858	405
Health Resources and Services Administration	10,483	2,744	-	-	5,039	-	1,055	-	1,645	-
Human Development Services	8,496	579	200	-	2,408	-	4,208	-	1,085	16
National Institutes of Health	6,061,763	1,026,923	246,280	13,269	3,758,220	25,318	899,143	8,097	45,760	38,753
Office of Asst't Secy for Health	25,550	8,461	6,180	-	8,691	-	1,839	-	229	150
Office of the Secretary	7,795	1,294	2,016	-	3,458	-	1,027	-	-	-
Social Security Administration	15,846	3,281	495	-	3,652	-	7,261	-	967	190
Dept of Housing & Urban Development	6,102	5,148	640	-	21	-	293	-	-	-
Department of the Interior, total	441,938	380,303	14,101	3,675	41,403	-	90	-	1,916	450
Bureau of Land Management	2,000	1,800	-	-	200	-	-	-	-	-
Bureau of Mines	93,223	65,232	11,622	3,550	12,648	-	-	-	171	-
Bureau of Reclamation	3,535	3,060	-	-	475	-	-	-	-	-
Geological Survey	266,946	244,833	2,389	-	17,979	-	-	-	1,745	-
Mineral Management Service	2,212	1,297	90	125	197	-	53	-	-	450
National Park Service	19,422	14,280	-	-	5,111	-	31	-	-	-
Off of Surface Mining Reclamation & Enforcement	700	1	-	-	693	-	6	-	-	-
Us Fish & Wildlife Service	53,900	49,800	-	-	4,100	-	-	-	-	-
Department of Justice, total	17,521	2,698	1,805	-	4,538	-	5,786	-	2,573	121
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	2,149	1,678	171	-	-	-	300	-	-	-
Immigration & Naturalization Svc	85	40	45	-	-	-	-	-	-	-
Office of Justice Programs	14,787	780	1,289	-	4,538	-	5,486	-	2,573	121
Department of Labor, total	22,159	4,872	7,651	-	6,378	-	3,258	-	-	-
Bureau of Labor Statistics	7,000	1,200	-	-	5,800	-	-	-	-	-
Employment Standards Administration	118	118	-	-	-	-	-	-	-	-
Employment and Training Admin	6,050	716	2,556	-	130	-	2,648	-	-	-
Labor-Management Relations & Cooperative Programs	303	10	-	-	293	-	-	-	-	-

Continued on next page

Table C-15. Federal obligations for research, by agency and performer: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,503	315	4,188	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	1,413	374	499	-	-	-	540	-	-	-
Office of the Secretary	2,472	1,839	408	-	155	-	70	-	-	-
Pension Benefit Guarantee Corporation	300	300	-	-	-	-	-	-	-	-
Department of State, total	4,714	306	59	-	1,240	-	3,104	-	-	5
Departmental funds	4,714	306	59	-	1,240	-	3,104	-	-	5
Department of Transportation, total ..	120,272	43,738	46,480	49	10,205	100	5,742	-	12,562	1,396
Coast Guard	4,600	2,722	1,262	-	616	-	-	-	-	-
Federal Aviation Administration	23,579	21,780	1,799	-	-	-	-	-	-	-
Federal Highway Administration	56,387	2,174	35,639	49	7,660	-	314	-	9,715	836
Federal Railroad Administration	7,480	3,819	428	-	50	-	3,183	-	-	-
Nat'l Highway Traffic Safety Admin .	26,242	12,123	6,488	-	1,879	100	2,245	-	2,847	560
Office of the Secretary	1,284	420	864	-	-	-	-	-	-	-
Research & Special Programs Admin ..	700	700	-	-	-	-	-	-	-	-
Department of the Treasury, total	16,310	11,545	4,370	-	220	175	-	-	-	-
Bureau of Engraving and Printing ...	1,379	1,204	-	-	-	175	-	-	-	-
Internal Revenue Service	14,135	10,155	3,760	-	220	-	-	-	-	-
Office of Protective Research	376	126	250	-	-	-	-	-	-	-
United States Customs Service	420	60	360	-	-	-	-	-	-	-
Department of Veterans Affairs	213,700	212,335	-	-	800	-	565	-	-	-
Other agencies										
Advisory Comm on Intergov't1 Relations	1,130	1,130	-	-	-	-	-	-	-	-
Agency for Internat'l Development	219,072	6,305	8,986	-	58,750	-	88,957	-	-	56,074
Appalachian Regional Commission	767	767	-	-	-	-	-	-	-	-
Consumer Product Safety Commission ...	486	281	205	-	-	-	-	-	-	-
Environmental Protection Agency	273,346	91,539	80,962	-	71,106	162	20,551	-	9,026	-
Federal Communications Commission	1,101	1,101	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/.....	4,051	3,856	160	-	35	-	-	-	-	-
Federal Trade Commission	379	379	-	-	-	-	-	-	-	-
General Services Administration	540	540	-	-	-	-	-	-	-	-
International Trade Commission	8,671	8,671	-	-	-	-	-	-	-	-
Library of Congress	1,567	1,567	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin ...	2,878,810	1,074,666	1,005,135	-	387,128	319,313	79,747	2,027	3,097	7,697
National Archives	155	155	-	-	-	-	-	-	-	-
National Science Foundation	1,670,396	165,746	57,111	511	1,253,713	95,270	94,647	377	1,466	1,555
Nuclear Regulatory Commission	114,815	22,915	7,432	43,623	4,300	22,047	1,850	10,460	-	2,188
Smithsonian Institution	80,152	80,152	-	-	-	-	-	-	-	-
Tennessee Valley Authority	14,570	13,665	-	-	678	-	227	-	-	-
US Arms Control & Disarmament Agency .	1,223	202	822	25	24	75	-	75	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-16. Federal obligations for research, by agency and performer: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	21,682,776	6,337,756	3,161,948	519,240	7,872,836	1,732,916	1,685,128	121,687	127,019	124,246
Departments										
Department of Agriculture, total	1,065,319	700,392	6,283	-	343,688	493	9,210	-	1,685	3,568
Agricultural Cooperative Service	2,779	2,779	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1,315	1,315	-	-	-	-	-	-	-	-
Agricultural Research Service	514,108	482,166	-	-	25,753	-	3,419	-	121	2,649
Animal & Plant Health Inspection Svc	7,809	7,325	-	-	429	-	55	-	-	-
Cooperative State Research Service	324,878	14,678	4,090	-	300,164	493	4,339	-	1,114	-
Economic Research Service	51,033	50,479	-	-	554	-	-	-	-	-
Federal Grain Inspection Service	799	426	-	-	325	-	48	-	-	-
Forest Service	148,300	131,464	493	-	14,500	-	1,349	-	450	44
Human Nutrition Information Service	9,031	5,800	1,700	-	1,531	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	3,092	2,869	-	-	223	-	-	-	-	-
Off of Internat'l Cooperation & Development	2,175	1,091	-	-	209	-	-	-	-	875
Department of Commerce, total	367,510	308,044	8,495	-	42,634	110	2,339	-	5,775	113
Bureau of the Census	2,913	2,590	-	-	323	-	-	-	-	-
Economic Development Administration	1,200	415	-	-	580	-	205	-	-	-
Nat'l Institute of Standards & Tech	116,188	102,489	3,681	-	9,364	110	456	-	-	88
Nat'l Oceanic & Atmospheric Admin	240,188	195,529	4,814	-	32,367	-	1,678	-	5,775	25
Nat'l Telecomm & Information Admin	7,021	7,021	-	-	-	-	-	-	-	-
Department of Defense, total	3,234,890	1,234,365	1,069,549	38,171	727,637	69,465	58,708	13,704	1,873	21,418
Department of the Army	719,148	485,401	108,342	12,933	83,507	8,413	11,562	1,120	-	7,870
Department of the Navy	778,700	405,342	113,480	15,290	218,373	4,272	14,373	855	1,873	4,842
Department of the Air Force	706,580	188,091	333,372	281	158,214	2,109	18,692	-	-	5,821
Defense agencies	1,030,462	155,531	514,355	9,667	267,543	54,671	14,081	11,729	-	2,885
Department of Education	133,150	14,597	6,821	-	88,592	-	20,108	-	3,032	-
Department of Energy	2,640,167	189,689	211,078	423,307	428,391	1,176,620	121,698	85,611	1,753	2,020
Dept of Hlth & Human Services, total	7,577,037	1,583,076	341,926	15,210	4,289,941	28,855	1,171,074	9,256	87,140	50,559
Alcohol, Drug Abuse & Mental Hlth Admin	816,175	205,878	24,425	-	478,541	-	70,924	-	30,570	5,837
Centers for Disease Control	125,936	77,647	5,000	-	23,235	-	19,704	-	350	-
Food & Drug Administration	110,000	102,789	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	50,000	1,000	13,664	-	7,954	-	26,334	-	548	500
Health Resources and Services Administration	10,464	2,736	-	-	5,038	-	1,140	-	1,550	-
Human Development Services	11,364	620	600	-	3,505	-	4,805	-	1,818	16
National Institutes of Health	6,374,300	1,171,760	281,033	15,210	3,745,958	28,855	1,025,894	9,256	52,178	44,156
Office of Asst't Secy for Health	55,750	15,705	15,604	-	18,008	-	6,383	-	-	50
Office of the Secretary	5,001	1,400	1,550	-	1,000	-	1,051	-	-	-
Social Security Administration	18,047	3,541	50	-	1,580	-	12,750	-	126	-
Dept of Housing & Urban Development	7,507	4,650	2,250	-	16	-	591	-	-	-
Department of the Interior, total	470,497	406,356	14,071	4,144	43,374	-	50	-	1,956	546
Bureau of Land Management	2,100	2,000	-	-	100	-	-	-	-	-
Bureau of Mines	94,951	69,198	11,990	3,593	10,170	-	-	-	-	-
Bureau of Reclamation	4,163	3,663	-	-	500	-	-	-	-	-
Geological Survey	285,172	258,579	1,791	461	22,385	-	-	-	1,956	-
Mineral Management Service	2,045	965	290	90	154	-	-	-	-	546
National Park Service	19,500	14,250	-	-	5,200	-	50	-	-	-
Off of Surface Mining Reclamation & Enforcement	766	1	-	-	765	-	-	-	-	-
Us Fish & Wildlife Service	61,800	57,700	-	-	4,100	-	-	-	-	-
Department of Justice, total	21,069	2,290	831	-	5,388	-	11,310	-	1,250	-
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	1,800	1,557	143	-	-	-	100	-	-	-
Immigration & Naturalization Svc	400	40	360	-	-	-	-	-	-	-
Office of Justice Programs	18,369	493	28	-	5,388	-	11,210	-	1,250	-
Department of Labor, total	22,276	4,416	7,690	-	7,230	-	2,940	-	-	-
Bureau of Labor Statistics	7,100	500	-	-	6,600	-	-	-	-	-
Employment Standards Administration	265	265	-	-	-	-	-	-	-	-
Employment and Training Admin	5,808	820	2,718	-	500	-	1,770	-	-	-
Labor-Management Relations & Cooperative Programs	70	10	-	-	60	-	-	-	-	-

Continued on next page

Table C-16. Federal obligations for research, by agency and performer: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,125	400	3,725	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2,429	436	993	-	-	-	1,000	-	-	-
Office of the Secretary	2,179	1,685	254	-	70	-	170	-	-	-
Pension Benefit Guarantee Corporation	300	300	-	-	-	-	-	-	-	-
Department of State, total	4,511	239	59	-	1,230	-	2,978	-	-	5
Departmental funds	4,511	239	59	-	1,230	-	2,978	-	-	5
Department of Transportation, total ..	121,219	45,529	45,522	-	12,784	100	4,280	-	11,357	1,647
Coast Guard	5,589	3,340	1,749	-	500	-	-	-	-	-
Federal Aviation Administration	28,665	22,300	6,365	-	-	-	-	-	-	-
Federal Highway Administration	50,695	1,283	29,719	-	10,289	-	-	-	8,757	647
Federal Railroad Administration	10,037	6,747	390	-	170	-	2,730	-	-	-
Nat'l Highway Traffic Safety Admin .	23,857	10,952	5,830	-	1,825	100	1,550	-	2,600	1,000
Office of the Secretary	1,776	307	1,469	-	-	-	-	-	-	-
Research & Special Programs Admin ..	600	600	-	-	-	-	-	-	-	-
Department of the Treasury, total	18,998	12,393	6,387	-	-	218	-	-	-	-
Bureau of Engraving and Printing	1,649	1,431	-	-	-	218	-	-	-	-
Internal Revenue Service	16,464	10,652	5,812	-	-	-	-	-	-	-
Office of Protective Research	485	210	275	-	-	-	-	-	-	-
United States Customs Service	400	100	300	-	-	-	-	-	-	-
Department of Veterans Affairs	217,200	216,400	-	-	800	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov't Relations	1,360	1,360	-	-	-	-	-	-	-	-
Agency for Internat'l Development	166,974	5,322	10,056	-	49,686	-	67,614	-	-	34,296
Appalachian Regional Commission	1,000	1,000	-	-	-	-	-	-	-	-
Consumer Product Safety Commission	230	221	9	-	-	-	-	-	-	-
Environmental Protection Agency	316,054	98,330	125,220	-	69,904	250	15,550	-	6,800	-
Federal Communications Commission	1,988	1,988	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/	5,786	5,786	-	-	-	-	-	-	-	-
Federal Trade Commission	459	459	-	-	-	-	-	-	-	-
General Services Administration	805	715	90	-	-	-	-	-	-	-
International Trade Commission	9,595	9,595	-	-	-	-	-	-	-	-
Library of Congress	1,466	1,466	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	3,295,200	1,189,858	1,223,112	-	440,095	340,230	89,370	2,023	2,921	7,591
National Archives	155	155	-	-	-	-	-	-	-	-
National Science Foundation	1,765,839	174,654	70,414	591	1,317,187	100,228	100,912	377	1,476	-
Nuclear Regulatory Commission	109,290	24,955	11,433	37,757	4,009	16,322	1,615	10,716	-	2,483
Smithsonian Institution	87,516	87,516	-	-	-	-	-	-	-	-
Tennessee Valley Authority	16,825	11,827	-	-	226	-	4,771	-	1	-
US Arms Control & Disarmament Agency .	584	110	355	60	24	25	10	-	-	-
United States Information Agency	300	3	297	-	-	-	-	-	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnal as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-17. Federal obligations for research, by agency and performer: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	23,219,740	6,866,606	3,427,334	505,058	8,356,073	1,863,166	1,796,913	137,343	125,303	141,944
Departments										
Department of Agriculture, total	1,116,873	738,134	6,775	-	361,509	493	5,781	-	1,459	2,722
Agricultural Cooperative Service	2,811	2,811	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1,364	1,364	-	-	-	-	-	-	-	-
Agricultural Research Service	552,541	518,409	-	-	27,678	-	3,675	-	130	2,649
Animal & Plant Health Inspection Svc	8,250	7,846	-	-	346	-	58	-	-	-
Cooperative State Research Service	335,393	15,277	4,231	-	313,999	493	560	-	833	-
Economic Research Service	56,262	55,708	-	-	554	-	-	-	-	-
Federal Grain Inspection Service	738	519	-	-	194	-	-	-	-	25
Forest Service	144,200	125,624	544	-	16,000	-	1,488	-	496	48
Human Nutrition Information Service	10,705	6,400	2,000	-	2,305	-	-	-	-	-
Nat'l Agriculutural Statistical Svc	3,230	3,007	-	-	223	-	-	-	-	-
Off of Internat'l Cooperation & Development	1,379	1,169	-	-	210	-	-	-	-	-
Department of Commerce, total	362,140	315,487	9,118	-	35,428	113	1,878	-	-	116
Bureau of the Census	2,912	2,589	-	-	323	-	-	-	-	-
Nat'l Institute of Standards & Tech	123,109	112,638	5,073	-	4,716	113	478	-	-	91
Nat'l Oceanic & Atmospheric Admin	228,759	192,900	4,045	-	30,389	-	1,400	-	-	25
Nat'l Telecomm & Information Admin	7,360	7,360	-	-	-	-	-	-	-	-
Department of Defense, total	3,469,541	1,337,659	1,167,282	25,029	788,903	56,579	62,064	9,159	1,413	21,453
Department of the Army	794,908	510,896	168,368	3,819	84,972	6,961	11,369	1,429	-	7,094
Department of the Navy	863,514	451,735	129,086	15,755	242,106	3,706	14,325	350	1,413	5,038
Department of the Air Force	781,572	206,554	373,521	305	171,380	2,283	21,323	-	-	6,206
Defense agencies	1,029,547	168,474	496,307	5,150	290,445	43,629	15,047	7,380	-	3,115
Department of Education	154,451	18,930	6,466	-	103,975	-	21,620	518	2,942	-
Department of Energy	2,741,263	220,545	160,104	418,250	415,781	1,262,215	158,874	102,984	1,113	1,397
Dept of Hlth & Human Services, total	7,977,050	1,701,919	354,200	15,899	4,513,142	30,327	1,206,646	9,558	91,693	53,666
Alcohol, Drug Abuse & Mental Hlth Admin	914,867	237,857	29,189	-	529,530	-	79,063	-	32,463	6,765
Centers for Disease Control	130,790	87,519	4,000	-	21,397	-	17,574	-	300	-
Food & Drug Administration	125,500	118,289	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	36,000	900	15,480	-	8,640	-	9,720	-	900	360
Health Resources and Services Administration	10,495	2,767	-	-	5,038	-	1,140	-	1,550	-
Human Development Services	11,854	831	600	-	4,253	-	4,419	-	1,727	24
National Institutes of Health	6,679,900	1,231,089	293,901	15,899	3,922,890	30,327	1,075,238	9,558	54,681	46,317
Office of Asst't Secy for Health	46,050	17,710	9,480	-	13,430	-	5,380	-	-	50
Office of the Secretary	5,017	1,416	1,550	-	1,000	-	1,051	-	-	-
Social Security Administration	16,577	3,541	-	-	1,842	-	10,972	-	72	150
Dept of Housing & Urban Development	17,713	5,300	6,811	-	-	-	5,602	-	-	-
Department of the Interior, total	452,215	412,361	2,844	2,850	31,365	-	200	-	1,810	785
Bureau of Land Management	4,300	3,100	-	-	1,200	-	-	-	-	-
Bureau of Mines	70,775	62,162	250	2,700	5,643	-	-	-	-	-
Bureau of Reclamation	6,101	5,101	250	-	750	-	-	-	-	-
Geological Survey	287,433	272,856	1,944	-	10,823	-	-	-	1,810	-
Mineral Management Service	2,526	771	400	150	420	-	-	-	-	785
National Park Service	22,750	15,750	-	-	6,800	-	200	-	-	-
Off of Surface Mining Reclamation & Enforcement	830	1	-	-	829	-	-	-	-	-
Us Fish & Wildlife Service	57,500	52,600	-	-	4,900	-	-	-	-	-
Department of Justice, total	18,337	2,148	1,603	-	5,150	-	8,436	-	1,000	-
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	1,800	1,557	143	-	-	-	100	-	-	-
Immigration & Naturalization Svc	400	40	360	-	-	-	-	-	-	-
Office of Justice Programs	15,637	351	800	-	5,150	-	8,336	-	1,000	-
Department of Labor, total	26,635	4,293	10,356	-	8,085	-	3,901	-	-	-
Bureau of Labor Statistics	7,200	600	-	-	6,600	-	-	-	-	-
Employment Standards Administration	221	221	-	-	-	-	-	-	-	-
Employment and Training Admin	6,693	525	3,222	-	680	-	2,266	-	-	-
Labor-Management Relations & Cooperative Programs	70	10	-	-	60	-	-	-	-	-

Continued on next page

Table C-17. Federal obligations for research, by agency and performer: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,125	400	3,725	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2,580	450	1,065	-	-	-	1,065	-	-	-
Office of the Secretary	5,431	1,772	2,344	-	745	-	570	-	-	-
Pension Benefit Guarantee Corporation	315	315	-	-	-	-	-	-	-	-
Department of State, total	4,525	267	59	-	1,226	-	2,968	-	-	5
Departmental funds	4,525	267	59	-	1,226	-	2,968	-	-	5
Department of Transportation, total ..	129,236	52,480	46,373	-	11,483	100	5,175	-	11,986	1,629
Coast Guard	6,070	3,610	1,960	-	500	-	-	-	-	-
Federal Aviation Administration	31,600	23,257	8,343	-	-	-	-	-	-	-
Federal Highway Administration	51,544	4,461	28,400	-	9,143	-	-	-	8,911	629
Federal Railroad Administration	12,384	7,100	1,434	-	50	-	3,500	-	300	-
Nat'l Highway Traffic Safety Admin .	25,449	12,799	5,300	-	1,800	100	1,675	-	2,775	1,000
Office of the Secretary	1,589	653	936	-	-	-	-	-	-	-
Research & Special Programs Admin ..	600	600	-	-	-	-	-	-	-	-
Department of the Treasury, total	18,797	11,992	6,387	-	200	218	-	-	-	-
Bureau of Engraving and Printing	1,198	980	-	-	-	218	-	-	-	-
Internal Revenue Service	16,464	10,652	5,612	-	200	-	-	-	-	-
Office of Protective Research	485	210	275	-	-	-	-	-	-	-
United States Customs Service	650	150	500	-	-	-	-	-	-	-
Department of Veterans Affairs	190,300	189,500	-	-	800	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1,385	1,385	-	-	-	-	-	-	-	-
Agency for Internat'l Development	165,829	7,696	-	-	38,212	-	69,148	-	-	50,773
Appalachian Regional Commission	1,000	1,000	-	-	-	-	-	-	-	-
Consumer Product Safety Commission	395	395	-	-	-	-	-	-	-	-
Environmental Protection Agency	362,664	110,582	143,277	-	82,058	350	18,842	-	7,555	-
Federal Communications Commission	1,309	1,309	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/	6,360	6,360	-	-	-	-	-	-	-	-
Federal Trade Commission	477	477	-	-	-	-	-	-	-	-
General Services Administration	130	130	-	-	-	-	-	-	-	-
International Trade Commission	10,500	10,500	-	-	-	-	-	-	-	-
Library of Congress	3,072	3,072	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	3,773,125	1,390,289	1,404,041	-	475,803	384,481	106,091	2,076	2,679	7,665
National Archives	551	301	-	-	-	250	-	-	-	-
National Science Foundation	1,983,352	187,037	89,936	698	1,477,463	110,946	115,241	378	1,653	-
Nuclear Regulatory Commission	116,183	25,418	9,981	42,132	5,245	16,994	2,060	12,620	-	1,733
Smithsonian Institution	100,145	100,145	-	-	-	-	-	-	-	-
Tennessee Valley Authority	11,787	9,191	-	-	210	-	2,386	-	-	-
US Arms Control & Disarmament Agency .	2,000	300	1,325	200	25	100	-	50	-	-
United States Information Agency	400	4	396	-	-	-	-	-	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-18. Federal obligations for research, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of Science/Engineering	1989	Estimates	
		1990	1991
Total, all fields	20,765,348	21,682,776	23,219,740
Life sciences, total	8,495,111	8,913,631	9,407,011
Biological (excluding environmental)	3,983,195	4,247,640	4,520,118
Environmental biology	367,802	355,451	370,136
Agricultural	669,039	671,396	733,588
Medical	3,222,523	3,372,295	3,506,370
Life Sciences, n.e.c.	252,552	266,849	276,799
Psychology, total	421,665	447,878	509,797
Biological aspects	121,797	136,143	146,195
Social aspects	149,920	161,242	178,083
Psychological sciences, n.e.c.	149,948	150,493	185,519
Physical sciences, total	3,705,223	3,894,954	4,191,479
Astronomy	541,939	581,281	600,104
Chemistry	782,636	839,001	832,436
Physics	2,190,779	2,287,095	2,479,283
Physical sciences, n.e.c.	189,869	187,577	279,656
Environmental sciences, total	1,773,248	2,103,914	2,344,784
Atmospheric	588,036	737,284	911,570
Geological	542,773	591,702	596,289
Oceanography	491,907	525,317	582,705
Environmental sciences, n.e.c.	150,532	249,611	254,220
Mathematics & computer sciences, total	735,441	720,923	792,224
Mathematics	236,055	235,954	254,514
Computer sciences	364,621	339,079	386,433
Mathematics & computer sciences, n.e.c.	134,765	145,890	151,277
Engineering, total	4,441,981	4,361,153	4,683,940
Aeronautical	986,805	1,064,409	1,075,146
Astronautical	677,396	612,703	803,310
Chemical	142,238	152,626	162,195
Civil	229,596	235,085	250,083
Electrical	843,097	699,487	715,938
Mechanical	257,357	263,050	288,004
Metallurgy & materials	521,001	519,787	599,107
Engineering, n.e.c.	784,491	814,006	790,157
Social sciences, total	551,041	620,850	645,954
Anthropology	13,864	14,490	16,305
Economics	166,788	180,184	187,020
Political Science	13,489	12,813	12,595
Sociology	94,079	122,546	153,911
Social sciences, n.e.c.	262,821	290,817	276,123
Other sciences, n.e.c.	641,638	619,473	644,551

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-19. Federal obligations for research, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	20,765,348	8,495,111	421,665	3,705,223	1,773,248	735,441	4,441,981	551,041	641,638
Departments									
Department of Agriculture, total	1,002,222	786,269	242	64,774	11,569	10,514	34,517	94,337	-
Agricultural Cooperative Service	2,821	-	-	-	-	-	-	2,821	-
Agricultural Marketing Service 1/	1,254	1,254	-	-	-	-	-	-	-
Agricultural Research Service	492,100	438,182	-	43,287	1,933	1,229	7,469	-	-
Animal & Plant Health Inspection Svc	7,354	7,354	-	-	-	-	-	-	-
Cooperative State Research Service	307,290	245,769	-	12,256	1,055	-	14,388	33,822	-
Economic Research Service	49,508	-	-	-	-	-	-	49,508	-
Federal Grain Inspection Service	771	771	-	-	-	-	-	-	-
Forest Service	127,500	82,212	242	9,231	8,581	6,388	12,660	8,186	-
Human Nutrition Information Service	8,395	8,395	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	2,897	-	-	-	-	2,897	-	-	-
Off of Internat'l Cooperation & Development	2,332	2,332	-	-	-	-	-	-	-
Department of Commerce, total	350,978	14,401	406	62,119	200,552	14,019	52,742	2,844	3,895
Bureau of the Census	2,982	-	380	-	-	2,090	-	468	44
Economic Development Administration	1,007	-	-	-	-	-	-	1,007	-
Nat'l Institute of Standards & Tech	105,557	-	-	49,265	487	9,984	45,659	162	-
Nat'l Oceanic & Atmospheric Admin	234,569	14,401	26	12,854	200,065	1,808	4,090	1,207	118
Nat'l Telecomm & Information Admin	6,863	-	-	-	-	137	2,993	-	3,733
Department of Defense, total	3,656,124	334,218	111,802	523,562	291,350	392,781	1,836,185	2,669	163,557
Department of the Army	823,443	174,824	51,741	116,920	28,976	18,091	400,632	2,331	29,928
Department of the Navy	783,218	40,091	25,158	117,404	111,465	85,593	389,901	-	13,606
Department of the Air Force	807,401	57,883	33,697	116,860	61,741	56,699	480,521	-	-
Defense agencies	1,242,062	61,420	1,206	172,378	89,168	232,398	565,131	338	120,023
Department of Education	121,962	15,677	8,289	-	-	490	7,323	89,983	-
Department of Energy	2,431,681	222,917	-	1,597,751	145,933	46,863	406,129	-	12,088
Dept of Hlth & Human Services, total	7,088,434	6,097,316	263,148	120,934	-	16,063	70,086	198,727	322,160
Alcohol, Drug Abuse & Mental Hlth Admin	692,640	434,913	168,548	9,258	-	1,539	616	69,199	8,567
Centers for Disease Control	117,785	117,785	-	-	-	-	-	-	-
Food & Drug Administration	99,000	99,000	-	-	-	-	-	-	-
Health Care Financing Admin	49,076	-	-	-	-	-	-	49,076	-
Health Resources and Services Administration	10,483	10,483	-	-	-	-	-	-	-
Human Development Services	8,496	-	-	-	-	-	-	8,496	-
National Institutes of Health	6,061,763	5,435,085	94,600	111,676	-	14,056	69,470	23,283	313,593
Office of Asst't Secy for Health	25,550	50	-	-	-	-	-	25,500	-
Office of the Secretary	7,795	-	-	-	-	468	-	7,327	-
Social Security Administration	15,846	-	-	-	-	-	-	15,846	-
Dept of Housing & Urban Development	6,102	-	-	11	-	155	50	5,767	119
Department of the Interior, total	441,938	74,217	-	26,681	235,242	11,103	92,795	1,700	200
Bureau of Land Management	2,000	1,900	-	-	100	-	-	-	-
Bureau of Mines	93,223	-	-	-	11,720	-	81,503	-	-
Bureau of Reclamation	3,535	898	-	80	244	-	2,313	-	-
Geological Survey	266,946	1,257	-	26,177	221,798	10,947	6,767	-	-
Mineral Management Service	2,212	-	-	-	-	-	2,212	-	-
National Park Service	19,422	15,992	-	-	1,380	150	-	1,700	200
Off of Surface Mining Reclamation & Enforcement	700	270	-	424	-	6	-	-	-
US Fish & Wildlife Service	53,900	53,900	-	-	-	-	-	-	-
Department of Justice, total	17,521	550	996	-	-	300	485	13,974	1,216
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	2,149	300	400	-	-	-	-	1,449	-
Immigration & Naturalization Svc	85	-	-	-	-	-	85	-	-
Office of Justice Programs	14,787	200	596	-	-	300	-	12,475	1,216
Department of Labor, total	22,159	-	-	-	-	-	-	21,899	260
Bureau of Labor Statistics	7,000	-	-	-	-	-	-	7,000	-
Employment Standards Administration	118	-	-	-	-	-	-	118	-
Employment and Training Admin	6,050	-	-	-	-	-	-	6,050	-
Labor-Management Relations & Coop Prog	303	-	-	-	-	-	-	303	-

Continued on next page

Table C-19. Federal obligations for research, by agency and field of science/engineering: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin .	4,503	-	-	-	-	-	-	4,503	-
Office of Pension & Welfare Benefits	1,413	-	-	-	-	-	-	1,413	-
Office of the Secretary	2,472	-	-	-	-	-	-	2,212	260
Pension Benefit Guarantee Corporation	300	-	-	-	-	-	-	300	-
Department of State, total	4,714	-	-	-	-	-	-	4,714	-
Departmental funds	4,714	-	-	-	-	-	-	4,714	-
Department of Transportation, total ..	120,272	3,406	-	7,926	4,474	7,236	87,638	9,592	-
Coast Guard	4,600	-	-	326	-	1,096	2,720	458	-
Federal Aviation Administration	23,579	-	-	-	-	-	23,579	-	-
Federal Highway Administration	56,387	-	-	7,100	4,474	4,190	40,623	-	-
Federal Railroad Administration	7,480	-	-	-	-	-	7,405	75	-
Nat'l Highway Traffic Safety Admin .	26,242	3,406	-	-	-	1,950	12,102	8,784	-
Office of the Secretary	1,284	-	-	500	-	-	684	100	-
Research & Special Programs Admin ..	700	-	-	-	-	-	525	175	-
Department of the Treasury, total	16,310	250	126	1,799	-	9,018	-	5,117	-
Bureau of Engraving and Printing ...	1,379	-	-	1,379	-	-	-	-	-
Internal Revenue Service	14,135	-	-	-	-	9,018	-	5,117	-
Office of Protective Research	376	250	126	-	-	-	-	-	-
United States Customs Service	420	-	-	420	-	-	-	-	-
Department of Veterans Affairs	213,700	193,519	14,662	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov't Relations	1,130	-	-	-	-	-	-	1,130	-
Agency for Internat'l Development	219,072	195,028	-	-	912	297	1,171	10,693	10,971
Appalachian Regional Commission	767	-	-	-	-	-	-	767	-
Consumer Product Safety Commission ...	486	-	-	429	-	-	57	-	-
Environmental Protection Agency	273,346	122,108	1,042	35,670	54,501	3,078	52,749	-	4,198
Federal Communications Commission	1,101	-	-	-	-	51	723	327	-
Office of Thrift Supervision	4,051	-	-	-	-	-	-	4,051	-
Federal Trade Commission	379	-	-	-	-	-	-	379	-
General Services Administration	540	-	-	-	-	-	540	-	-
International Trade Commission	8,671	-	-	-	-	-	-	8,671	-
Library of Congress	1,567	-	-	-	-	-	-	-	1,567
National Aeronautics & Space Admin ...	2,878,810	123,077	8,210	807,748	398,620	77,669	1,446,415	2,665	14,406
National Archives	155	-	-	130	-	25	-	-	-
National Science Foundation	1,670,396	277,434	12,742	433,808	423,234	145,244	232,042	43,265	102,627
Nuclear Regulatory Commission	114,815	-	-	-	-	-	114,815	-	-
Smithsonian Institution	80,152	30,222	-	16,448	6,108	-	-	27,374	-
Tennessee Valley Authority	14,570	4,302	-	4,980	753	-	-	161	4,374
US Arms Control & Disarmament Agency .	1,223	-	-	453	-	535	-	235	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-20. Federal obligations for research, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	21,682,776	8,913,631	447,878	3,894,954	2,103,914	720,923	4,361,153	620,850	619,473
Departments									
Department of Agriculture, total	1,065,319	838,145	282	66,985	12,898	11,905	36,567	98,537	-
Agricultural Cooperative Service	2,779	-	-	-	-	-	-	2,779	-
Agricultural Marketing Service 1/	1,315	1,315	-	-	-	-	-	-	-
Agricultural Research Service	514,108	460,441	-	43,673	1,851	1,383	6,760	-	-
Animal & Plant Health Inspection Svc	7,809	7,809	-	-	-	-	-	-	-
Cooperative State Research Serv	324,878	260,951	-	12,575	1,066	-	15,081	35,205	-
Economic Research Service	51,033	-	-	-	-	-	-	51,033	-
Federal Grain Inspection Service	799	799	-	-	-	-	-	-	-
Forest Service	148,300	95,624	282	10,737	9,981	7,430	14,726	9,520	-
Human Nutrition Information Service	9,031	9,031	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	3,092	-	-	-	-	3,092	-	-	-
Off of Internat'l Cooperation & Development	2,175	2,175	-	-	-	-	-	-	-
Department of Commerce, total	367,510	14,893	338	65,735	204,556	14,079	60,487	3,284	4,138
Bureau of the Census	2,913	-	310	-	-	1,936	-	609	58
Economic Development Administration	1,200	-	-	-	-	-	-	1,200	-
Nat'l Institute of Standards & Tech	116,188	-	-	52,105	242	10,252	53,418	171	-
Nat'l Oceanic & Atmospheric Admin	240,188	14,893	28	13,630	204,314	1,818	4,074	1,304	127
Nat'l Telecomm & Information Admin	7,021	-	-	-	-	73	2,995	-	3,953
Department of Defense, total	3,234,890	274,058	97,829	491,797	274,619	364,573	1,619,149	1,720	111,145
Department of the Army	719,148	146,893	39,489	101,484	25,342	26,918	375,635	1,720	1,667
Department of the Navy	778,700	42,060	25,540	116,824	111,770	77,628	390,194	-	14,684
Department of the Air Force	706,580	54,575	31,338	108,184	57,329	45,739	409,415	-	-
Defense agencies	1,030,462	30,530	1,462	165,305	80,178	214,288	443,905	-	94,794
Department of Education	133,150	16,701	8,508	-	-	530	7,966	99,445	-
Department of Energy	2,640,167	240,273	-	1,643,646	258,206	48,328	436,217	-	13,497
Dept of Hlth & Human Services, total	7,577,037	6,476,677	298,986	128,638	-	16,877	73,784	242,215	339,860
Alcohol, Drug Abuse & Mental Hlth Admin	816,175	509,080	199,485	11,257	-	1,790	741	83,820	10,002
Centers for Disease Control	125,936	125,936	-	-	-	-	-	-	-
Food & Drug Administration	110,000	110,000	-	-	-	-	-	-	-
Health Care Financing Admin	50,000	-	-	-	-	-	-	50,000	-
Health Resources and Services Administration	10,464	10,464	-	-	-	-	-	-	-
Human Development Services	11,364	-	-	-	-	-	-	11,364	-
National Institutes of Health	6,374,300	5,715,247	99,501	117,381	-	14,787	73,043	24,483	329,858
Office of Asst't Secy for Health	55,750	5,950	-	-	-	-	-	49,800	-
Office of the Secretary	5,001	-	-	-	-	300	-	4,701	-
Social Security Administration	18,047	-	-	-	-	-	-	18,047	-
Dept of Housing & Urban Development	7,507	-	-	172	-	338	254	5,529	1,214
Department of the Interior, total	470,497	82,690	-	28,294	251,915	11,581	94,217	1,800	-
Bureau of Land Management	2,100	2,000	-	-	100	-	-	-	-
Bureau of Mines	94,951	-	-	-	11,824	-	83,127	-	-
Bureau of Reclamation	4,163	742	-	1,030	140	-	2,251	-	-
Geological Survey	285,172	1,269	-	27,057	238,651	11,401	6,794	-	-
Mineral Management Service	2,045	-	-	-	-	-	2,045	-	-
National Park Service	19,500	16,400	-	-	1,200	100	-	1,800	-
Off of Surface Mining Reclamation & Enforcement	766	479	-	207	-	80	-	-	-
US Fish & Wildlife Service	61,800	61,800	-	-	-	-	-	-	-
Department of Justice, total	21,069	150	900	-	-	300	800	16,177	2,742
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	1,800	-	600	-	-	-	-	1,200	-
Immigration & Naturalization Svc	400	-	-	-	-	-	400	-	-
Office of Justice Programs	18,369	100	300	-	-	300	-	14,927	2,742
Department of Labor, total	22,276	-	-	-	-	-	-	22,276	-
Bureau of Labor Statistics	7,100	-	-	-	-	-	-	7,100	-
Employment Standards Administration	265	-	-	-	-	-	-	265	-
Employment and Training Admin	5,808	-	-	-	-	-	-	5,808	-
Labor-Management Relations & Coop Prog	70	-	-	-	-	-	-	70	-

Continued on next page

Table C-20. Federal obligations for research, by agency and field of science/engineering: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin .	4,125	-	-	-	-	-	-	4,125	-
Office of Pension & Welfare Benefits	2,429	-	-	-	-	-	-	2,429	-
Office of the Secretary	2,179	-	-	-	-	-	-	2,179	-
Pension Benefit Guarantee Corporation	300	-	-	-	-	-	-	300	-
Department of State, total	4,511	-	-	-	-	-	-	4,511	-
Departmental funds	4,511	-	-	-	-	-	-	4,511	-
Department of Transportation, total ..	121,219	2,593	-	8,117	4,195	6,921	89,496	9,897	-
Coast Guard	5,589	-	-	224	-	1,515	3,012	838	-
Federal Aviation Administration	28,665	-	-	-	-	-	28,665	-	-
Federal Highway Administration	50,695	-	-	7,393	4,195	2,968	35,718	421	-
Federal Railroad Administration	10,037	-	-	-	-	-	9,937	100	-
Nat'l Highway Traffic Safety Admin .	23,857	2,593	-	-	-	2,438	10,508	8,318	-
Office of the Secretary	1,776	-	-	500	-	-	1,176	100	-
Research & Special Programs Admin ..	600	-	-	-	-	-	480	120	-
Department of the Treasury, total	18,998	250	235	2,049	-	10,504	-	5,960	-
Bureau of Engraving and Printing ...	1,649	-	-	1,649	-	-	-	-	-
Internal Revenue Service	16,464	-	-	-	-	10,504	-	5,960	-
Office of Protective Research	485	250	235	-	-	-	-	-	-
United States Customs Service	400	-	-	400	-	-	-	-	-
Department of Veterans Affairs	217,200	197,666	14,015	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov't Relations	1,360	-	-	-	-	-	-	1,360	-
Agency for Internat'l Development	166,974	144,224	-	-	292	315	3,556	8,826	9,761
Appalachian Regional Commission	1,000	-	-	-	-	-	-	1,000	-
Consumer Product Safety Commission ...	230	-	-	141	-	-	89	-	-
Environmental Protection Agency	316,054	137,828	1,151	41,362	65,052	4,163	62,235	271	3,992
Federal Communications Commission	1,988	-	-	-	-	70	1,518	400	-
Office of Thrift Supervision	5,786	-	-	-	-	-	-	5,786	-
Federal Trade Commission	459	-	-	-	-	-	-	459	-
General Services Administration	805	-	-	-	-	-	805	-	-
International Trade Commission	9,595	-	-	-	-	-	-	9,595	-
Library of Congress	1,466	-	-	-	-	-	-	-	1,466
National Aeronautics & Space Admin ...	3,295,200	159,787	12,169	935,737	577,620	76,667	1,513,243	3,524	16,453
National Archives	155	-	-	130	-	25	-	-	-
National Science Foundation	1,765,839	293,212	13,465	458,447	447,220	153,497	245,661	45,783	108,554
Nuclear Regulatory Commission	109,290	-	-	-	-	-	109,290	-	-
Smithsonian Institution	87,546	30,597	-	18,209	6,599	-	-	32,111	-
Tennessee Valley Authority	16,825	3,687	-	5,380	742	-	-	165	6,651
US Arms Control & Disarmament Agency .	584	-	-	115	-	250	-	219	-
United States Information Agency	300	-	-	-	-	-	300	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-21. Federal obligations for research, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	23,219,740	9,407,011	509,797	4,191,479	2,344,784	792,224	4,683,940	645,954	644,551
Departments									
Department of Agriculture, total	1,116,873	889,501	274	68,936	12,731	11,943	34,203	99,285	-
Agricultural Cooperative Service	2,811	-	-	-	-	-	-	2,811	-
Agricultural Marketing Service 1/	1,364	1,364	-	-	-	-	-	-	-
Agricultural Research Service	552,541	494,860	-	46,938	1,990	1,488	7,265	-	-
Animal & Plant Health Inspection Svc	8,250	8,250	-	-	-	-	-	-	-
Cooperative State Research Service	335,393	279,225	-	11,558	1,036	-	12,619	30,955	-
Economic Research Service	56,262	-	-	-	-	-	-	56,262	-
Federal Grain Inspection Service	738	738	-	-	-	-	-	-	-
Forest Service	144,200	92,980	274	10,440	9,705	7,225	14,319	9,257	-
Human Nutrition Information Service	10,705	10,705	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	3,230	-	-	-	-	3,230	-	-	-
Off of Internat'l Cooperation & Development	1,379	1,379	-	-	-	-	-	-	-
Department of Commerce, total	362,140	8,555	335	69,317	201,638	15,565	60,784	1,799	4,147
Bureau of the Census	2,912	-	309	-	-	1,936	-	609	58
Nat'l Institute of Standards & Tech	123,109	-	-	56,625	258	11,738	54,311	177	-
Nat'l Oceanic & Atmospheric Admin	228,759	8,555	26	12,692	201,380	1,816	3,173	1,013	104
Nat'l Telecomm & Information Admin	7,360	-	-	-	-	75	3,300	-	3,985
Department of Defense, total	3,469,541	295,444	104,141	533,608	291,773	389,334	1,747,666	1,778	105,797
Department of the Army	794,908	157,225	41,127	118,338	28,094	32,198	399,705	1,778	16,443
Department of the Navy	863,514	46,587	28,410	132,997	123,522	86,264	432,585	-	13,149
Department of the Air Force	781,572	56,511	33,132	117,757	59,657	51,349	463,166	-	-
Defense agencies	1,029,547	35,121	1,472	164,516	80,500	219,523	452,210	-	76,205
Department of Education	154,451	16,862	8,741	-	-	535	7,773	120,540	-
Department of Energy	2,741,263	257,153	-	1,726,039	272,584	52,621	420,039	-	12,827
Dept of Hlth & Human Services, total	7,977,050	6,807,651	351,944	137,236	-	17,701	77,403	229,246	355,869
Alcohol, Drug Abuse & Mental Hlth Admin	914,867	544,002	247,788	13,863	-	1,912	786	95,419	11,097
Centers for Disease Control	130,790	130,790	-	-	-	-	-	-	-
Food & Drug Administration	125,500	125,500	-	-	-	-	-	-	-
Health Care Financing Admin	36,000	-	-	-	-	-	-	36,000	-
Health Resources and Services Administration	10,495	10,495	-	-	-	-	-	-	-
Human Development Services	11,854	-	-	-	-	-	-	11,854	-
National Institutes of Health	6,679,900	5,989,914	104,156	123,373	-	15,488	76,617	25,580	344,772
Office of Asst't Secy for Health	46,050	6,950	-	-	-	-	-	39,100	-
Office of the Secretary	5,017	-	-	-	-	301	-	4,716	-
Social Security Administration	16,577	-	-	-	-	-	-	16,577	-
Dept of Housing & Urban Development	17,713	-	-	-	-	4,473	101	12,621	518
Department of the Interior, total	452,215	81,975	-	29,989	247,849	12,656	76,801	2,945	-
Bureau of Land Management	4,300	3,900	-	-	400	-	-	-	-
Bureau of Mines	70,775	-	-	-	7,660	-	63,115	-	-
Bureau of Reclamation	6,101	1,254	-	143	654	-	4,005	45	-
Geological Survey	287,433	1,391	-	29,846	236,535	12,506	7,155	-	-
Mineral Management Service	2,526	-	-	-	-	-	2,526	-	-
National Park Service	22,750	17,800	-	-	1,900	150	-	2,900	-
Off of Surface Mining Reclamation & Enforcement	830	130	-	-	700	-	-	-	-
US Fish & Wildlife Service	57,500	57,500	-	-	-	-	-	-	-
Department of Justice, total	18,337	150	900	-	-	300	800	15,487	700
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	1,800	-	600	-	-	-	-	1,200	-
Immigration & Naturalization Svc	400	-	-	-	-	-	400	-	-
Office of Justice Programs	15,637	100	300	-	-	300	-	14,237	700
Department of Labor, total	26,635	-	-	-	-	-	-	23,385	3,250
Bureau of Labor Statistics	7,200	-	-	-	-	-	-	7,200	-
Employment Standards Administration	221	-	-	-	-	-	-	221	-
Employment and Training Admin	6,693	-	-	-	-	-	-	6,693	-
Labor-Management Relations & Coop Prog	70	-	-	-	-	-	-	70	-

Continued on next page

Table C-21. Federal obligations for research, by agency and field of science/engineering: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin .	4,125	-	-	-	-	-	-	4,125	-
Office of Pension & Welfare Benefits	2,580	-	-	-	-	-	-	2,580	-
Office of the Secretary	5,431	-	-	-	-	-	-	2,181	3,250
Pension Benefit Guarantee Corporation	315	-	-	-	-	-	-	315	-
Department of State, total	4,525	-	-	-	-	-	-	4,525	-
Departmental funds	4,525	-	-	-	-	-	-	4,525	-
Department of Transportation, total ..	129,236	2,766	558	8,867	5,576	7,273	93,332	10,864	-
Coast Guard	6,070	-	558	-	836	1,328	3,348	-	-
Federal Aviation Administration	31,600	-	-	-	-	-	31,600	-	-
Federal Highway Administration	51,544	-	-	8,367	4,740	3,345	34,624	468	-
Federal Railroad Administration	12,384	-	-	-	-	-	11,150	1,234	-
Nat'l Highway Traffic Safety Admin .	25,449	2,766	-	-	-	2,600	11,210	8,873	-
Office of the Secretary	1,589	-	-	500	-	-	900	189	-
Research & Special Programs Admin ..	600	-	-	-	-	-	500	100	-
Department of the Treasury, total	18,797	250	235	1,848	-	10,504	-	5,960	-
Bureau of Engraving and Printing ...	1,198	-	-	1,198	-	-	-	-	-
Internal Revenue Service	16,464	-	-	-	-	10,504	-	5,960	-
Office of Protective Research	485	250	235	-	-	-	-	-	-
United States Customs Service	650	-	-	650	-	-	-	-	-
Department of Veterans Affairs	190,300	172,512	12,269	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov't Relations	1,385	-	-	-	-	-	-	1,385	-
Agency for Internat'l Development	165,829	141,854	-	-	-	332	4,650	9,470	9,523
Appalachian Regional Commission	1,000	-	-	-	-	-	-	1,000	-
Consumer Product Safety Commission ...	395	-	-	150	-	-	245	-	-
Environmental Protection Agency	362,664	159,571	1,098	51,537	64,756	9,802	71,416	345	4,139
Federal Communications Commission	1,309	-	-	-	-	150	1,051	108	-
Office of Thrift Supervision	6,360	-	-	-	-	-	-	6,360	-
Federal Trade Commission	477	-	-	-	-	-	-	477	-
General Services Administration	130	-	-	-	-	-	130	-	-
International Trade Commission	10,500	-	-	-	-	-	-	10,500	-
Library of Congress	3,072	-	-	-	-	-	-	-	3,072
National Aeronautics & Space Admin ...	3,773,125	204,721	14,185	1,018,629	738,673	86,165	1,689,058	3,988	17,706
National Archives	551	-	-	526	-	25	-	-	-
National Science Foundation	1,983,352	329,234	15,117	514,728	502,054	172,345	276,386	51,483	122,005
Nuclear Regulatory Commission	116,183	-	-	-	-	-	116,183	-	-
Smithsonian Institution	100,145	35,659	-	25,898	7,150	-	-	31,438	-
Tennessee Valley Authority	11,787	3,153	-	3,471	-	-	-	165	4,998
US Arms Control & Disarmament Agency .	2,000	-	-	700	-	500	-	800	-
United States Information Agency	400	-	-	-	-	-	400	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-22. Federal obligations for research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	421,665	121,797	149,920	149,948	8,495,111	3,983,195	367,802	669,039	3,222,523	252,552
Departments										
Department of Agriculture, total	242	-	242	-	786,269	97,574	141,913	524,928	21,854	-
Agricultural Marketing Service 1/	-	-	-	-	1,254	-	-	1,254	-	-
Agricultural Research Service	-	-	-	-	438,182	21,538	40,051	367,980	8,613	-
Animal & Plant Health Inspection Svc	-	-	-	-	7,354	-	-	7,354	-	-
Cooperative State Research Service	-	-	-	-	245,769	43,498	52,188	136,842	13,241	-
Federal Grain Inspection Service	-	-	-	-	771	-	-	771	-	-
Forest Service	242	-	242	-	82,212	32,538	49,674	-	-	-
Human Nutrition Information Service	-	-	-	-	8,395	-	-	8,395	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	2,332	-	-	2,332	-	-
Department of Commerce, total	406	-	406	-	14,401	-	6,685	6,284	1,432	-
Bureau of the Census	380	-	380	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	26	-	26	-	14,401	-	6,685	6,284	1,432	-
Department of Defense, total	111,802	10,242	75,327	26,233	334,218	45,873	55,552	-	187,832	44,961
Department of the Army	51,741	104	49,286	2,351	174,824	8,430	1,011	-	165,383	-
Department of the Navy	25,158	7,744	2,389	15,025	40,091	17,031	2,280	-	20,031	749
Department of the Air Force	33,697	1,323	23,517	8,857	57,883	10,065	2,665	-	941	44,212
Defense agencies	1,206	1,071	135	-	61,420	10,347	49,596	-	1,477	-
Department of Education	8,289	467	3,705	4,117	15,877	2,583	-	-	8,676	4,618
Department of Energy	-	-	-	-	222,917	167,098	2,445	200	37,279	15,895
Dept of Hlth & Human Services, total	263,148	87,069	59,768	116,311	6,097,316	3,252,202	808	673	2,706,272	137,361
Alcohol, Drug Abuse & Mental Hlth Admin	168,548	87,069	59,768	21,711	434,913	259,902	673	673	159,530	14,135
Centers for Disease Control	-	-	-	-	117,785	-	-	-	117,785	-
Food & Drug Administration	-	-	-	-	99,000	48,510	-	-	50,490	-
Health Resources and Services Administration	-	-	-	-	10,483	-	-	-	10,483	-
National Institutes of Health	94,600	-	-	94,600	5,435,085	2,943,790	135	-	2,367,934	123,226
Office of Asst't Secy for Health	-	-	-	-	50	-	-	-	50	-
Department of the Interior, total	-	-	-	-	74,217	44,520	27,790	1,905	2	-
Bureau of Land Management	-	-	-	-	1,900	-	100	1,800	-	-
Bureau of Reclamation	-	-	-	-	898	-	898	-	-	-
Geological Survey	-	-	-	-	1,257	576	576	105	-	-
National Park Service	-	-	-	-	15,992	1,990	14,000	-	2	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	270	-	270	-	-	-
US Fish & Wildlife Service	-	-	-	-	53,900	41,954	11,946	-	-	-
Department of Justice, total	996	-	771	225	550	200	-	50	-	300
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	400	-	400	-	300	-	-	-	-	300
Office of Justice Programs	596	-	371	225	200	200	-	-	-	-
Department of Transportation, total	-	-	-	-	3,406	3,406	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	3,406	3,406	-	-	-	-
Department of the Treasury, total	126	-	-	126	250	-	-	-	250	-
Office of Protective Research	126	-	-	126	250	-	-	-	250	-
Department of Veterans Affairs	14,662	14,662	-	-	193,519	23,078	-	-	170,441	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	195,028	20,464	3,583	122,124	27,926	20,931
Environmental Protection Agency	1,042	1,042	-	-	122,108	66,311	32,394	8,182	15,221	-
National Aeronautics & Space Admin	8,210	84	5,879	2,247	123,077	46,939	2,318	391	45,338	28,091
National Science Foundation	12,742	8,231	3,822	689	277,434	198,912	78,127	-	-	395
Smithsonian Institution	-	-	-	-	30,222	14,035	16,187	-	-	-
Tennessee Valley Authority	-	-	-	-	4,302	-	-	4,302	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-23. Federal obligations for research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	447,878	136,143	161,242	150,493	8,913,631	4,247,640	355,451	671,396	3,372,295	266,849
Departments										
Department of Agriculture, total	282	-	282	-	838,145	105,021	156,091	553,699	23,334	-
Agricultural Marketing Service 1/	-	-	-	-	1,315	-	-	1,315	-	-
Agricultural Research Service	-	-	-	-	460,441	22,237	42,056	386,985	9,163	-
Animal & Plant Health Inspection Svc	-	-	-	-	7,809	-	-	7,809	-	-
Cooperative State Research Service	-	-	-	-	260,951	44,938	56,257	145,585	14,171	-
Federal Grain Inspection Service	-	-	-	-	799	-	-	799	-	-
Forest Service	282	-	282	-	95,624	37,846	57,778	-	-	-
Human Nutrition Information Service	-	-	-	-	9,031	-	-	9,031	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	2,175	-	-	2,175	-	-
Department of Commerce, total	338	-	338	-	14,893	-	6,588	6,797	1,508	-
Bureau of the Census	310	-	310	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	28	-	28	-	14,893	-	6,588	6,797	1,508	-
Department of Defense, total	97,829	11,078	69,886	16,865	274,058	46,047	26,136	-	158,713	43,162
Department of the Army	39,489	846	36,260	2,383	146,893	10,210	1,551	-	135,132	-
Department of the Navy	25,540	9,143	9,999	6,398	42,060	18,208	2,298	-	20,936	618
Department of the Air Force	31,338	1,089	22,165	8,084	54,575	6,907	3,791	-	1,333	42,544
Defense agencies	1,462	-	1,462	-	30,530	10,722	18,496	-	1,312	-
Department of Education	8,508	498	3,739	4,271	16,701	2,639	-	-	9,172	4,890
Department of Energy	-	-	-	-	240,273	183,412	2,733	300	37,252	16,576
Dept of Hlth & Human Services, total	298,986	102,055	71,120	125,811	6,476,677	3,454,388	914	786	2,874,074	146,515
Alcohol, Drug Abuse & Mental Hlth Admin	199,485	102,055	71,120	26,310	509,080	305,102	786	786	185,520	16,886
Centers for Disease Control	-	-	-	-	125,936	-	-	-	125,936	-
Food & Drug Administration	-	-	-	-	110,000	53,920	-	-	56,080	-
Health Resources and Services Administration	-	-	-	-	10,464	-	-	-	10,464	-
National Institutes of Health	99,501	-	-	99,501	5,715,247	3,095,366	128	-	2,490,124	129,629
Office of Asst't Secy for Health	-	-	-	-	5,950	-	-	-	5,950	-
Department of the Interior, total	-	-	-	-	82,690	51,664	29,021	2,005	-	-
Bureau of Land Management	-	-	-	-	2,000	-	100	1,900	-	-
Bureau of Reclamation	-	-	-	-	742	-	742	-	-	-
Geological Survey	-	-	-	-	1,269	582	582	105	-	-
National Park Service	-	-	-	-	16,400	200	16,200	-	-	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	479	-	479	-	-	-
US Fish & Wildlife Service	-	-	-	-	61,800	50,882	10,918	-	-	-
Department of Justice, total	900	-	900	-	150	100	-	50	-	-
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	600	-	600	-	-	-	-	-	-	-
Office of Justice Programs	300	-	300	-	100	100	-	-	-	-
Department of Transportation, total	-	-	-	-	2,593	2,593	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	2,593	2,593	-	-	-	-
Department of the Treasury, total	235	-	-	235	250	-	-	-	250	-
Office of Protective Research	235	-	-	235	250	-	-	-	250	-
Department of Veterans Affairs	14,015	13,715	300	-	197,566	24,188	-	-	173,478	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	144,224	16,577	742	90,740	16,908	19,257
Environmental Protection Agency	1,151	-	1,151	-	137,828	74,029	32,155	12,686	18,958	-
National Aeronautics & Space Admin	12,169	100	9,488	2,581	159,787	62,583	2,079	446	58,648	36,031
National Science Foundation	13,465	8,697	4,038	730	293,212	210,199	82,595	-	-	418
Smithsonian Institution	-	-	-	-	30,597	14,200	16,397	-	-	-
Tennessee Valley Authority	-	-	-	-	3,887	-	-	3,887	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-24. Federal obligations for research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	509,797	146,195	178,083	185,519	9,407,011	4,520,118	370,136	733,588	3,506,370	276,799
Departments										
Department of Agriculture, total	274	-	274	-	889,501	122,834	148,846	602,593	15,228	-
Agricultural Marketing Service 1/	-	-	-	-	1,364	-	-	1,364	-	-
Agricultural Research Service	-	-	-	-	494,860	23,899	48,200	415,912	9,849	-
Animal & Plant Health Inspection Svc	-	-	-	-	8,250	-	-	8,250	-	-
Cooperative State Research Service	-	-	-	-	279,225	62,135	47,466	164,245	5,379	-
Federal Grain Inspection Service	-	-	-	-	738	-	-	738	-	-
Forest Service	274	-	274	-	92,980	36,800	56,180	-	-	-
Human Nutrition Information Service	-	-	-	-	10,705	-	-	10,705	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	1,379	-	-	1,379	-	-
Department of Commerce, total	335	-	335	-	8,555	-	2,246	5,480	829	-
Bureau of the Census	309	-	309	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	26	-	26	-	8,555	-	2,246	5,480	829	-
Department of Defense, total	104,141	12,168	76,561	15,412	295,444	51,635	29,435	-	170,062	44,312
Department of the Army	41,127	1,035	37,195	2,897	157,225	10,116	1,360	-	145,749	-
Department of the Navy	28,410	9,955	11,476	6,979	48,587	21,861	2,506	-	21,533	687
Department of the Air Force	33,132	1,178	26,418	5,536	56,511	7,475	4,000	-	1,411	43,625
Defense agencies	1,472	-	1,472	-	35,121	12,183	21,569	-	1,369	-
Department of Education	8,741	494	3,709	4,538	16,862	2,637	-	-	9,098	5,127
Department of Energy	-	-	-	-	257,153	198,115	1,680	325	37,396	19,637
Dept of Hlth & Human Services, total	351,944	111,664	79,036	161,244	6,807,651	3,655,802	1,004	872	2,996,199	153,774
Alcohol, Drug Abuse & Mental Hlth Admin	247,788	111,664	79,036	57,088	544,002	348,396	872	872	175,761	18,101
Centers for Disease Control	-	-	-	-	130,790	-	-	-	130,790	-
Food & Drug Administration	-	-	-	-	125,500	61,920	-	-	63,580	-
Health Resources and Services Administration	-	-	-	-	10,495	-	-	-	10,495	-
National Institutes of Health	104,156	-	-	104,156	5,989,914	3,245,486	132	-	2,608,623	135,673
Office of Asst't Secy for Health	-	-	-	-	6,950	-	-	-	6,950	-
Department of the Interior, total	-	-	-	-	81,975	37,318	41,852	2,805	-	-
Bureau of Land Management	-	-	-	-	3,900	400	800	2,700	-	-
Bureau of Reclamation	-	-	-	-	1,254	-	1,254	-	-	-
Geological Survey	-	-	-	-	1,391	643	643	105	-	-
National Park Service	-	-	-	-	17,800	100	17,700	-	-	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	130	-	130	-	-	-
US Fish & Wildlife Service	-	-	-	-	57,500	36,175	21,325	-	-	-
Department of Justice, total	900	-	400	500	150	100	-	50	-	-
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	600	-	100	500	-	-	-	-	-	-
Office of Justice Programs	300	-	300	-	100	100	-	-	-	-
Department of Transportation, total	558	-	558	-	2,766	2,766	-	-	-	-
Coast Guard	558	-	558	-	-	-	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	2,766	2,766	-	-	-	-
Department of the Treasury, total	235	-	-	235	250	-	-	-	250	-
Office of Protective Research	235	-	-	235	250	-	-	-	250	-
Department of Veterans Affairs	12,269	11,999	270	-	172,512	16,419	-	-	156,093	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	141,854	13,085	529	100,368	10,957	16,938
Environmental Protection Agency	1,098	-	1,098	-	159,571	90,954	29,275	17,484	21,858	-
National Aeronautics & Space Admin	14,185	107	11,309	2,769	204,721	76,353	2,946	481	88,400	36,541
National Science Foundation	15,117	9,763	4,533	821	329,234	235,990	92,774	-	-	470
Smithsonian Institution	-	-	-	-	35,659	16,110	19,549	-	-	-
Tennessee Valley Authority	-	-	-	-	3,153	-	-	3,153	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-25. Federal obligations for research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	3,705,223	541,939	782,636	2,190,779	189,869	1,773,248	588,036	542,773	491,907	150,532
Departments										
Department of Agriculture, total	64,774	-	60,992	3,782	-	11,569	4,269	7,300	-	-
Agricultural Research Service	43,287	-	41,252	2,035	-	1,933	1,633	300	-	-
Cooperative State Research Service	12,256	-	12,256	-	-	1,055	1,055	-	-	-
Forest Service	9,231	-	7,484	1,747	-	8,581	1,581	7,000	-	-
Department of Commerce, total	62,119	451	24,375	37,283	10	200,552	50,856	4,364	142,738	2,594
Nat'l Institute of Standards & Tech	49,265	451	17,698	31,106	10	487	-	487	-	-
Nat'l Oceanic & Atmospheric Admin	12,854	-	6,677	6,177	-	200,065	50,856	3,877	142,738	2,594
Department of Defense, total	523,562	12,704	133,544	294,101	83,213	291,350	102,544	95,321	77,404	16,081
Department of the Army	116,920	-	60,395	19,916	36,609	28,976	16,728	7,146	230	4,872
Department of the Navy	117,404	5,849	25,522	82,050	3,983	111,465	17,141	27,193	66,439	692
Department of the Air Force	116,860	6,710	43,179	63,737	3,234	61,741	52,732	9,009	-	-
Defense agencies	172,378	145	4,448	128,398	39,387	89,168	15,943	51,973	10,735	10,517
Department of Energy	1,597,751	-	213,381	1,376,845	7,525	145,933	37,945	82,821	6,559	18,608
Dept of Hlth & Human Services, total	120,934	-	107,780	12,949	205	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	9,258	-	9,206	52	-	-	-	-	-	-
National Institutes of Health	111,676	-	98,574	12,897	205	-	-	-	-	-
Dept of Housing & Urban Development	11	-	11	-	-	-	-	-	-	-
Department of the Interior, total	26,681	-	22,010	4,247	424	235,242	224	199,315	26,584	9,119
Bureau of Land Management	-	-	-	-	-	100	100	-	-	-
Bureau of Mines	-	-	-	-	-	11,720	-	3,628	-	8,092
Bureau of Reclamation	80	-	80	-	-	244	124	93	-	27
Geological Survey	26,177	-	21,930	4,247	-	221,798	-	195,214	26,584	-
National Park Service	-	-	-	-	-	1,380	-	380	-	1,000
Off of Surface Mining Reclamation & Enforcement	424	-	-	-	424	-	-	-	-	-
Department of Transportation, total	7,926	-	6,410	1,016	500	4,474	-	4,474	-	-
Coast Guard	326	-	326	-	-	-	-	-	-	-
Federal Highway Administration	7,100	-	6,084	1,016	-	4,474	-	4,474	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	1,799	-	1,231	250	318	-	-	-	-	-
Bureau of Engraving and Printing	1,379	-	1,061	-	318	-	-	-	-	-
United States Customs Service	420	-	170	250	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	-	912	-	-	-	912
Consumer Product Safety Commission	429	-	429	-	-	-	-	-	-	-
Environmental Protection Agency	35,670	-	32,516	3,154	-	54,501	48,789	3,800	1,912	-
National Aeronautics & Space Admin	807,748	428,963	47,363	289,825	41,597	398,620	205,635	47,047	47,834	98,104
National Archives	130	-	60	70	-	-	-	-	-	-
National Science Foundation	433,808	83,373	127,354	167,183	55,898	423,234	136,982	93,962	187,177	5,114
Smithsonian Institution	16,448	16,448	-	-	-	6,108	40	4,369	1,699	-
Tennessee Valley Authority	4,980	-	4,980	-	-	753	753	-	-	-
US Arms Control & Disarmament Agency	453	-	200	74	179	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-26. Federal obligations for research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	3,894,954	581,281	839,001	2,287,095	187,577	2,103,914	737,284	591,702	525,317	249,611
Departments										
Department of Agriculture, total	66,985	-	62,948	4,037	-	12,898	4,509	8,389	-	-
Agricultural Research Service	43,673	-	41,668	2,005	-	1,851	1,604	247	-	-
Cooperative State Research Service	12,575	-	12,575	-	-	1,066	1,066	-	-	-
Forest Service	10,737	-	8,705	2,032	-	9,981	1,839	8,142	-	-
Department of Commerce, total	65,735	539	25,126	40,070	-	204,556	52,500	4,165	145,183	2,708
Nat'l Institute of Standards & Tech	52,105	539	18,311	33,255	-	242	-	242	-	-
Nat'l Oceanic & Atmospheric Admin	13,630	-	6,815	6,815	-	204,314	52,500	3,923	145,183	2,708
Department of Defense, total	491,797	10,713	131,022	292,344	57,718	274,619	96,351	90,810	73,105	14,353
Department of the Army	101,484	-	64,017	22,234	15,233	25,342	14,704	7,520	399	2,719
Department of the Navy	116,824	5,466	26,154	80,784	4,420	111,770	18,094	27,397	65,279	1,000
Department of the Air Force	108,184	0,247	38,051	61,774	3,112	57,329	49,632	7,697	-	-
Defense agencies	165,305	-	2,800	127,552	34,953	80,178	13,921	48,196	7,427	10,634
Department of Energy	1,643,646	4,940	238,392	1,394,492	5,822	258,206	71,082	95,261	6,578	85,285
Dept of Hlth & Human Services, total	128,638	-	114,826	13,579	233	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	11,257	-	11,194	63	-	-	-	-	-	-
National Institutes of Health	117,381	-	103,632	13,516	233	-	-	-	-	-
Dept of Housing & Urban Development	172	-	172	-	-	-	-	-	-	-
Department of the Interior, total	28,294	-	22,685	4,416	1,193	251,915	126	215,472	26,450	9,867
Bureau of Land Management	-	-	-	-	-	100	100	-	-	-
Bureau of Mines	-	-	-	-	-	11,824	-	2,557	-	9,267
Bureau of Reclamation	1,030	-	44	-	986	140	26	114	-	-
Geological Survey	27,057	-	22,641	4,416	-	238,651	-	212,201	26,450	-
National Park Service	-	-	-	-	-	1,200	-	600	-	600
Off of Surface Mining Reclamation & Enforcement	207	-	-	-	207	-	-	-	-	-
Department of Transportation, total	8,117	-	6,958	659	500	4,195	-	4,195	-	-
Coast Guard	224	-	224	-	-	-	-	-	-	-
Federal Highway Administration	7,393	-	6,734	659	-	4,195	-	4,195	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	2,049	-	1,385	400	264	-	-	-	-	-
Bureau of Engraving and Printing	1,649	-	1,385	-	264	-	-	-	-	-
United States Customs Service	400	-	-	400	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	-	292	-	-	-	292
Consumer Product Safety Commission	141	-	141	-	-	-	-	-	-	-
Environmental Protection Agency	41,362	-	37,373	3,989	-	65,052	56,286	5,798	2,968	-
National Aeronautics & Space Admin	935,737	458,789	57,894	356,303	62,751	577,620	310,903	63,595	71,423	131,699
National Archives	130	-	60	70	-	-	-	-	-	-
National Science Foundation	458,447	88,091	134,604	176,686	59,066	447,220	144,741	99,292	197,780	5,407
Smithsonian Institution	18,209	18,209	-	-	-	6,599	44	4,725	1,830	-
Tennessee Valley Authority	5,380	-	5,380	-	-	742	742	-	-	-
US Arms Control & Disarmament Agency	115	-	35	50	30	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-27. Federal obligations for research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	4,191,479	600,104	832,436	2,479,283	279,656	2,344,784	911,570	596,289	582,705	254,220
Departments										
Department of Agriculture, total	68,936	-	64,806	4,130	-	12,731	4,549	8,182	-	-
Agricultural Research Service	46,938	-	44,783	2,155	-	1,990	1,725	265	-	-
Cooperative State Research Service	11,558	-	11,558	-	-	1,036	1,036	-	-	-
Forest Service	10,440	-	8,465	1,975	-	9,705	1,788	7,917	-	-
Department of Commerce, total	69,317	545	25,486	43,142	144	201,638	61,181	1,942	136,119	2,396
Nat'l Institute of Standards & Tech	56,625	545	20,197	35,739	144	258	-	258	-	-
Nat'l Oceanic & Atmospheric Admin	12,692	-	5,289	7,403	-	201,380	61,181	1,684	136,119	2,396
Department of Defense, total	533,608	11,760	141,152	298,915	81,781	291,773	103,707	92,831	78,275	16,960
Department of the Army	118,338	-	65,290	21,132	31,916	28,094	14,691	7,687	350	5,366
Department of the Navy	132,997	6,081	29,187	92,789	4,940	123,522	20,075	30,817	71,268	1,362
Department of the Air Force	117,757	5,679	43,903	64,984	3,191	59,657	51,712	7,945	-	-
Defense agencies	164,516	-	2,772	120,010	41,734	80,500	17,229	46,382	6,657	10,232
Department of Energy	1,726,039	-	190,376	1,523,266	12,397	272,584	87,818	77,514	7,517	99,735
Dept of Hlth & Human Services, total	137,236	-	122,749	14,242	245	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	13,863	-	13,796	67	-	-	-	-	-	-
National Institutes of Health	123,373	-	108,953	14,175	245	-	-	-	-	-
Department of the Interior, total	29,989	-	25,120	4,869	-	247,849	903	211,720	26,936	8,290
Bureau of Land Management	-	-	-	-	-	400	400	-	-	-
Bureau of Mines	-	-	-	-	-	7,660	-	1,770	-	5,890
Bureau of Reclamation	143	-	143	-	-	654	503	151	-	-
Geological Survey	29,846	-	24,977	4,869	-	236,535	-	208,299	26,936	1,300
National Park Service	-	-	-	-	-	1,900	-	1,500	-	400
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	-	700	-	-	-	700
Department of Transportation, total	8,867	-	7,607	760	500	5,576	-	4,740	836	-
Coast Guard	-	-	-	-	-	836	-	-	836	-
Federal Highway Administration	8,367	-	7,607	760	-	4,740	-	4,740	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	1,848	-	1,098	650	100	-	-	-	-	-
Bureau of Engraving and Printing	1,198	-	1,098	-	100	-	-	-	-	-
United States Customs Service	650	-	-	650	-	-	-	-	-	-
Other agencies										
Consumer Product Safety Commission	150	-	150	-	-	-	-	-	-	-
Environmental Protection Agency	51,537	-	46,443	5,094	-	64,756	57,067	5,022	2,667	-
National Aeronautics & Space Admin	1,018,629	463,018	52,161	385,518	117,932	738,673	433,808	77,756	106,344	120,765
National Archives	526	-	266	260	-	-	-	-	-	-
National Science Foundation	514,729	98,883	151,151	198,387	66,307	502,054	162,484	111,472	222,024	6,074
Smithsonian Institution	25,898	25,898	-	-	-	7,150	53	5,110	1,987	-
Tennessee Valley Authority	3,471	-	3,471	-	-	-	-	-	-	-
US Arms Control & Disarmament Agency	700	-	400	50	250	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-28. Federal obligations for research in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	4,441,981	986,805	677,396	142,238	229,596	843,097	257,357	521,001	784,491
Departments									
Department of Agriculture, total	34,517	-	-	7,235	5,415	375	3,776	-	17,716
Agricultural Research Service	7,469	-	-	4,532	1,819	325	793	-	-
Cooperative State Research Service	14,388	-	-	-	-	-	-	-	14,388
Forest Service	12,660	-	-	2,703	3,596	50	2,983	-	3,328
Department of Commerce, total	52,742	-	52	3,208	4,502	12,012	1,233	11,651	20,084
Nat'l Institute of Standards & Tech	45,659	-	52	3,208	3,339	7,511	1,233	11,651	18,665
Nat'l Oceanic & Atmospheric Admin	4,090	-	-	-	1,163	1,508	-	-	1,419
Nat'l Telecomm & Information Admin	2,993	-	-	-	-	2,993	-	-	-
Department of Defense, total	1,836,185	245,287	81,303	46,892	76,955	721,779	166,659	343,371	153,939
Department of the Army	400,632	50,377	4,707	23,439	40,268	180,219	57,493	22,730	21,399
Department of the Navy	389,901	40,139	5,137	11,614	7,064	144,319	83,840	56,148	41,640
Department of the Air Force	480,521	148,990	63,256	11,624	7,810	176,981	21,468	42,867	7,525
Defense agencies	565,131	5,781	8,203	215	21,813	220,260	3,858	221,626	83,375
Department of Education	7,323	-	-	-	-	-	-	-	7,323
Department of Energy	406,129	-	-	4,493	29,253	22,592	16,165	78,001	255,625
Dept of Hlth & Human Services, total	70,086	-	-	-	-	-	-	-	70,086
Alcohol, Drug Abuse & Mental Hlth Admin	616	-	-	-	-	-	-	-	616
National Institutes of Health	69,470	-	-	-	-	-	-	-	69,470
Dept of Housing & Urban Development	50	-	-	-	-	-	-	-	50
Department of the Interior, total	92,795	-	-	5,820	3,564	640	537	23,398	58,836
Bureau of Mines	81,503	-	-	-	-	-	-	23,320	58,183
Bureau of Reclamation	2,313	-	-	-	1,447	466	112	33	255
Geological Survey	6,767	-	-	4,610	1,626	174	355	-	-
Mineral Management Service	2,212	-	-	1,210	489	-	70	45	398
Department of Justice, total	485	200	-	-	-	230	55	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	85	-	-	-	-	30	55	-	-
Department of Transportation, total	87,638	3,537	1,699	6,927	54,832	5,193	14,646	179	625
Coast Guard	2,720	-	-	-	1,984	450	286	-	-
Federal Aviation Administration	23,579	3,537	1,415	-	15,326	3,301	-	-	-
Federal Highway Administration	40,623	-	-	6,555	33,469	522	48	29	-
Federal Railroad Administration	7,405	-	-	372	4,053	745	1,860	150	225
Nat'l Highway Traffic Safety Admin	12,102	-	-	-	-	-	12,102	-	-
Office of the Secretary	684	-	284	-	-	-	-	-	400
Research & Special Programs Admin	525	-	-	-	-	175	350	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	1,171	-	-	-	171	1,000	-	-	-
Consumer Product Safety Commission	57	-	-	-	-	-	-	-	57
Environmental Protection Agency	52,749	-	-	19,194	17,678	412	3,600	758	11,107
Federal Communications Commission	723	-	-	-	-	723	-	-	-
General Services Administration	540	-	-	-	540	-	-	-	-
National Aeronautics & Space Admin	1,446,415	737,390	594,342	6,015	91	8,989	14,877	35,544	49,167
National Science Foundation	232,042	391	-	42,454	36,595	69,152	35,609	28,099	19,542
Nuclear Regulatory Commission	114,815	-	-	-	-	-	-	-	114,815

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-29. Federal obligations for research in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	4,361,153	1,064,409	612,703	152,626	235,385	699,487	263,050	519,787	814,006
Departments									
Department of Agriculture, total	36,567	-	-	7,457	5,788	222	4,149	-	18,951
Agricultural Research Service	6,760	-	-	4,313	1,606	163	678	-	-
Cooperative State Research Service	15,081	-	-	-	-	-	-	-	15,081
Forest Service	14,726	-	-	3,144	4,182	59	3,471	-	3,870
Department of Commerce, total	60,487	-	-	3,844	6,698	12,881	1,383	12,320	23,361
Nat'l Institute of Standards & Tech	53,418	-	-	3,844	5,636	8,367	1,383	12,320	21,868
Nat'l Oceanic & Atmospheric Admin	4,074	-	-	-	1,062	1,519	-	-	1,493
Nat'l Telecomm & Information Admin	2,995	-	-	-	-	2,995	-	-	-
Department of Defense, total	1,619,149	214,860	85,193	41,582	71,239	565,449	168,049	328,261	144,516
Department of the Army	375,635	48,590	1,342	25,942	39,347	143,467	71,890	23,511	21,546
Department of the Navy	390,194	39,209	16,060	12,381	10,940	141,322	78,550	55,377	36,355
Department of the Air Force	409,415	122,590	60,929	3,259	5,180	149,041	16,485	44,710	7,241
Defense agencies	443,905	4,471	6,862	-	15,772	131,619	1,144	204,663	79,374
Department of Education	7,966	-	-	-	-	-	-	-	7,966
Department of Energy	436,217	-	-	5,532	31,694	24,387	16,520	79,811	278,273
Dept of Hlth & Human Services, total	73,784	-	-	-	-	-	-	-	73,784
Alcohol, Drug Abuse & Mental Hlth Admin	741	-	-	-	-	-	-	-	741
National Institutes of Health	73,043	-	-	-	-	-	-	-	73,043
Dept of Housing & Urban Development	254	-	-	-	-	-	-	-	254
Department of the Interior, total	94,217	-	-	5,665	3,255	600	564	28,072	56,061
Bureau of Mines	83,127	-	-	-	-	-	-	28,025	55,102
Bureau of Reclamation	2,251	-	-	18	1,182	427	132	35	457
Geological Survey	6,794	-	-	4,655	1,614	173	352	-	-
Mineral Management Service	2,045	-	-	992	459	-	80	12	502
Department of Justice, total	800	200	-	-	-	400	200	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	400	-	-	-	-	200	200	-	-
Department of Transportation, total	89,496	4,156	2,583	6,286	55,594	5,782	13,658	297	1,140
Coast Guard	3,012	-	-	-	2,062	615	335	-	-
Federal Aviation Administration	28,665	4,156	2,007	-	18,919	3,583	-	-	-
Federal Highway Administration	35,718	-	-	5,786	29,093	419	-	-	420
Federal Railroad Administration	9,937	-	-	500	5,520	1,000	2,500	297	120
Nat'l Highway Traffic Safety Admin	10,508	-	-	-	-	-	10,508	-	-
Office of the Secretary	1,176	-	576	-	-	-	-	-	600
Research & Special Programs Admin	480	-	-	-	-	165	315	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	3,556	-	-	-	156	2,000	-	-	1,400
Consumer Product Safety Commission	89	-	-	-	-	-	-	-	89
Environmental Protection Agency	62,235	-	-	23,861	21,031	436	4,544	556	11,807
Federal Communications Commission	1,518	-	-	-	-	1,518	-	-	-
General Services Administration	805	-	-	-	805	-	-	-	-
National Aeronautics & Space Admin	1,513,243	844,779	524,927	13,457	103	12,298	16,065	40,739	60,875
National Science Foundation	245,661	414	-	44,942	38,722	73,214	37,918	29,731	20,720
Nuclear Regulatory Commission	109,290	-	-	-	-	-	-	-	109,290
United States Information Agency	300	-	-	-	-	300	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-30. Federal obligations for research in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	4,683,940	1,075,146	803,310	162,195	250,083	715,938	268,004	599,107	790,157
Departments									
Department of Agriculture, total	34,203	-	-	7,692	5,792	233	4,103	-	16,383
Agricultural Research Service	7,265	-	-	4,635	1,726	175	729	-	-
Cooperative State Research Service	12,619	-	-	-	-	-	-	-	12,619
Forest Service	14,319	-	-	3,057	4,066	58	3,374	-	3,764
Department of Commerce, total	60,784	-	-	5,449	4,424	17,076	1,961	13,329	18,545
Nat'l Institute of Standards & Tech	54,311	-	-	5,449	3,527	12,318	1,961	13,329	17,727
Nat'l Oceanic & Atmospheric Admin	3,173	-	-	-	897	1,458	-	-	818
Nat'l Telecomm & Information Admin	3,300	-	-	-	-	3,300	-	-	-
Department of Defense, total	1,747,666	245,864	90,900	40,957	84,833	563,382	181,065	396,028	144,637
Department of the Army	399,705	53,295	1,171	22,982	48,985	152,398	70,735	28,138	22,001
Department of the Navy	432,585	43,125	17,427	14,633	11,681	156,896	87,610	61,183	40,030
Department of the Air Force	463,166	144,964	62,703	3,342	5,502	170,157	21,709	47,364	7,425
Defense agencies	452,210	4,480	9,599	-	18,665	83,931	1,011	259,343	75,181
Department of Education	7,773	-	-	-	-	-	-	-	7,773
Department of Energy	420,039	-	-	2,953	32,597	25,103	15,945	78,399	265,042
Dept of Hlth & Human Services, total	77,403	-	-	-	-	-	-	-	77,403
Alcohol, Drug Abuse & Mental Hlth Admin	786	-	-	-	-	-	-	-	786
National Institutes of Health	76,617	-	-	-	-	-	-	-	76,617
Dept of Housing & Urban Development	101	-	-	-	-	-	-	-	101
Department of the Interior, total	76,801	-	-	6,551	3,910	777	852	26,825	37,886
Bureau of Mines	63,115	-	-	-	-	-	-	26,727	36,388
Bureau of Reclamation	4,005	-	-	142	1,875	610	281	86	1,011
Geological Survey	7,155	-	-	5,143	1,515	167	330	-	-
Mineral Management Service	2,526	-	-	1,266	520	-	241	12	487
Department of Justice, total	800	200	-	-	-	400	200	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	400	-	-	-	-	200	200	-	-
Department of Transportation, total	93,332	4,740	2,512	6,865	53,902	8,018	14,511	250	2,514
Coast Guard	3,348	-	-	-	585	1,399	519	-	845
Federal Aviation Administration	31,600	4,740	2,212	-	20,540	4,108	-	-	-
Federal Highway Administration	34,624	-	-	6,495	27,202	478	-	-	449
Federal Railroad Administration	11,150	-	-	370	5,575	1,858	2,477	250	620
Nat'l Highway Traffic Safety Admin	11,210	-	-	-	-	-	11,210	-	-
Office of the Secretary	900	-	300	-	-	-	-	-	600
Research & Special Programs Admin	500	-	-	-	-	175	325	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	4,650	-	-	-	150	2,700	-	-	1,800
Consumer Product Safety Commission	245	-	-	-	-	-	-	-	245
Environmental Protection Agency	71,416	-	-	28,860	20,694	496	5,776	639	14,951
Federal Communications Commission	1,051	-	-	-	-	1,051	-	-	-
General Services Administration	130	-	-	-	130	-	-	-	-
National Aeronautics & Space Admin	1,689,058	823,876	709,898	12,309	112	13,927	20,901	50,211	57,824
National Science Foundation	276,386	466	-	50,559	43,539	82,375	42,670	33,426	23,351
Nuclear Regulatory Commission	116,183	-	-	-	-	-	-	-	116,183
United States Information Agency	400	-	-	-	-	400	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-31. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	735,441	236,055	364,621	134,765	551,041	13,864	166,788	13,489	94,079	262,821
Departments										
Department of Agriculture, total	10,514	9,408	1,106	-	94,337	-	83,787	430	9,269	851
Agricultural Cooperative Service	-	-	-	-	2,821	-	2,821	-	-	-
Agricultural Research Service	1,229	123	1,106	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	33,822	-	26,411	-	7,411	-
Economic Research Service	-	-	-	-	49,508	-	47,517	149	991	851
Forest Service	6,388	6,388	-	-	8,186	-	7,038	281	867	-
Nat'l Agricultural Statistics Svc	2,897	2,897	-	-	-	-	-	-	-	-
Department of Commerce, total	14,019	6,225	5,368	2,426	2,844	-	2,003	567	12	262
Bureau of the Census	2,090	1,938	152	-	468	-	255	213	-	-
Economic Development Administration	-	-	-	-	1,007	-	1,007	-	-	-
Nat'l Institute of Standards & Tech	9,984	3,633	3,925	2,426	162	-	150	-	12	-
Nat'l Oceanic & Atmospheric Admin	1,808	654	1,154	-	1,207	-	591	354	-	262
Nat'l Telecomm & Information Admin	137	-	137	-	-	-	-	-	-	-
Department of Defense, total	392,781	64,829	200,475	127,477	2,669	-	1,399	338	932	-
Department of the Army	18,091	5,026	11,287	1,778	2,331	-	1,399	-	932	-
Department of the Navy	85,593	28,156	46,546	10,891	-	-	-	-	-	-
Department of the Air Force	56,699	19,358	33,519	3,822	-	-	-	-	-	-
Defense agencies	232,398	12,289	109,123	110,986	338	-	-	338	-	-
Department of Education	490	-	-	490	89,983	-	-	-	1,258	88,725
Department of Energy	46,863	29,877	16,986	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	16,063	14,448	1,615	-	198,727	942	16,605	2,722	66,461	111,997
Alcohol, Drug Abuse & Mental Hlth Admin	1,539	514	1,025	-	69,199	942	3,274	2,356	47,331	15,296
Health Care Financing Admin	-	-	-	-	49,076	-	-	-	-	49,076
Human Development Services	-	-	-	-	8,496	-	-	-	-	8,496
National Institutes of Health	14,056	13,934	122	-	23,283	-	-	-	-	23,283
Office of Asst't Secy for Health	-	-	-	-	25,500	-	8,568	-	16,932	-
Office of the Secretary	468	-	468	-	7,327	-	4,763	366	2,198	-
Social Security Administration	-	-	-		15,846	-	-	-	-	15,846
Dept of Housing & Urban Development	155	-	155	-	5,767	-	5,691	-	37	39
Department of the Interior, total	11,103	1,777	9,326	-	1,700	1,000	-	-	700	-
Geological Survey	10,947	1,777	9,170	-	-	-	-	-	-	-
National Park Service	150	-	150	-	1,700	1,000	-	-	700	-
Off of Surface Mining Reclamation & Enforcement	6	-	6	-	-	-	-	-	-	-
Department of Justice, total	300	300	-	-	13,974	200	300	550	3,649	9,275
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,449	50	50	-	1,149	200
Office of Justice Programs	300	300	-	-	12,475	150	250	550	2,500	9,025
Department of Labor, total	-	-	-	-	21,899	-	21,899	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,000	-	7,000	-	-	-
Employment Standards Administration	-	-	-	-	118	-	118	-	-	-
Employment and Training Admin	-	-	-	-	6,050	-	6,050	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	303	-	303	-	-	-

Continued on next page

Table C-31. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Occupational Safety & Health Admin .	-	-	-	-	4,503	-	4,503	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	1,413	-	1,413	-	-	-
Office of the Secretary	-	-	-	-	2,212	-	2,212	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	300	-	300	-	-	-
Department of State, total	-	-	-	-	4,714	172	884	751	349	2,558
Departmental funds	-	-	-	-	4,714	172	884	751	349	2,558
Department of Transportation, total ..	7,236	-	5,236	2,000	9,592	-	350	2,767	6,475	-
Coast Guard	1,096	-	1,096	-	458	-	-	-	458	-
Federal Highway Administration	4,190	-	2,190	2,000	-	-	-	-	-	-
Federal Railroad Administration	-	-	-	-	75	-	75	-	-	-
Nat'l Highway Traffic Safety Admin .	1,950	-	1,950	-	8,784	-	-	2,767	6,017	-
Office of the Secretary	-	-	-	-	100	-	100	-	-	-
Research & Special Programs Admin ..	-	-	-	-	175	-	175	-	-	-
Department of the Treasury, total	9,018	7,668	1,350	-	5,117	-	3,326	-	-	1,791
Internal Revenue Service	9,018	7,668	1,350	-	5,117	-	3,326	-	-	1,791
Other agencies										
Advisory Comm on Intergov't Relations	-	-	-	-	1,130	-	565	565	-	-
Agency for Internat'l Development	297	-	297	-	10,693	-	2,573	1,009	1,038	6,073
Appalachian Regional Commission	-	-	-	-	767	-	-	-	-	767
Environmental Protection Agency	3,078	39	3,039	-	-	-	-	-	-	-
Federal Communications Commission	51	-	51	-	327	-	274	-	-	53
Office of Thrift Supervision	-	-	-	-	4,051	-	4,051	-	-	-
Federal Trade Commission	-	-	-	-	379	-	379	-	-	-
International Trade Commission	-	-	-	-	8,671	-	8,671	-	-	-
National Aeronautics & Space Admin ...	77,669	27,548	48,148	1,973	2,665	-	27	25	-	2,613
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	145,244	73,911	71,333	-	43,265	8,529	13,843	3,668	3,899	13,326
Smithsonian Institution	-	-	-	-	27,374	3,021	-	-	-	24,353
Tennessee Valley Authority	-	-	-	-	161	-	161	-	-	-
US Arms Control & Disarmament Agency .	535	-	136	399	235	-	-	97	-	138

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-32. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	720,923	235,954	339,079	145,890	620,850	14,490	180,184	12,813	122,546	290,817
Departments										
Department of Agriculture, total	11,905	10,660	1,245	-	98,537	-	87,623	479	9,557	878
Agricultural Cooperative Service	-	-	-	-	2,779	-	2,779	-	-	-
Agricultural Research Service	1,383	138	1,245	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	35,205	-	27,677	-	7,528	-
Economic Research Service	-	-	-	-	51,033	-	48,981	153	1,021	878
Forest Service	7,430	7,430	-	-	9,520	-	8,186	326	1,008	-
Nat'l Agricultural Statistics Svc	3,092	3,092	-	-	-	-	-	-	-	-
Department of Commerce, total	14,079	5,008	5,781	3,290	3,284	-	2,342	659	-	283
Bureau of the Census	1,936	1,739	197	-	609	-	332	277	-	-
Economic Development Administration	-	-	-	-	1,200	-	1,200	-	-	-
Nat'l Institute of Standards & Tech	10,252	2,610	4,352	3,290	171	-	171	-	-	-
Nat'l Oceanic & Atmospheric Admin	1,818	659	1,159	-	1,304	-	639	382	-	283
Nat'l Telecomm & Information Admin	73	-	73	-	-	-	-	-	-	-
Department of Defense, total	364,573	56,617	171,897	136,059	1,720	-	1,032	-	688	-
Department of the Army	26,918	6,018	19,341	1,559	1,720	-	1,032	-	688	-
Department of the Navy	77,628	22,532	44,778	10,318	-	-	-	-	-	-
Department of the Air Force	45,739	17,309	23,218	5,212	-	-	-	-	-	-
Defense agencies	214,288	10,758	84,560	118,970	-	-	-	-	-	-
Department of Education	530	-	-	530	99,445	-	-	-	1,338	98,107
Department of Energy	48,328	31,688	16,640	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	16,877	15,256	1,621	-	242,215	1,107	22,033	3,060	92,104	123,911
Alcohol, Drug Abuse & Mental Hlth Admin	1,790	618	1,172	-	83,820	1,107	3,857	2,825	56,014	20,017
Health Care Financing Admin	-	-	-	-	50,000	-	-	-	-	50,000
Human Development Services	-	-	-	-	11,364	-	-	-	-	11,364
National Institutes of Health	14,787	14,638	149	-	24,483	-	-	-	-	24,483
Office of Asst't Secy for Health	-	-	-	-	49,800	-	15,120	-	34,680	-
Office of the Secretary	300	-	300	-	4,701	-	3,056	235	1,410	-
Social Security Administration	-	-	-	-	18,047	-	-	-	-	18,047
Dept of Housing & Urban Development	338	-	338	-	5,529	-	5,001	-	271	257
Department of the Interior, total	11,581	1,826	9,755	-	1,800	900	-	-	900	-
Geological Survey	11,401	1,826	9,575	-	-	-	-	-	-	-
National Park Service	100	-	100	-	1,800	900	-	-	900	-
Off of Surface Mining Reclamation & Enforcement	80	-	80	-	-	-	-	-	-	-
Department of Justice, total	300	300	-	-	16,177	200	250	1,140	4,400	10,187
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,200	50	50	-	800	300
Office of Justice Programs	300	300	-	-	14,927	150	200	1,140	3,600	9,837
Department of Labor, total	-	-	-	-	22,276	-	22,276	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,100	-	7,100	-	-	-
Employment Standards Administration	-	-	-	-	265	-	265	-	-	-
Employment and Training Admin	-	-	-	-	5,808	-	5,808	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	70	-	70	-	-	-

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Table C-32. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Occupational Safety & Health Admin.	-	-	-	-	4,125	-	4,125	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	2,429	-	2,429	-	-	-
Office of the Secretary	-	-	-	-	2,179	-	2,179	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	300	-	300	-	-	-
Department of State, total	-	-	-	-	4,511	166	855	728	337	2,425
Departmental funds	-	-	-	-	4,511	166	855	728	337	2,425
Department of Transportation, total	6,921	417	3,066	3,438	9,897	-	741	1,141	8,015	-
Coast Guard	1,515	-	1,515	-	838	-	-	-	838	-
Federal Highway Administration	2,968	417	1,551	1,000	421	-	421	-	-	-
Federal Railroad Administration	-	-	-	-	100	-	100	-	-	-
Nat'l Highway Traffic Safety Admin.	2,438	-	-	2,438	8,318	-	-	1,141	7,177	-
Office of the Secretary	-	-	-	-	100	-	100	-	-	-
Research & Special Programs Admin.	-	-	-	-	120	-	120	-	-	-
Department of the Treasury, total	10,504	8,928	1,576	-	5,960	-	3,874	-	-	2,086
Internal Revenue Service	10,504	8,928	1,576	-	5,960	-	3,874	-	-	2,086
Other agencies										
Advisory Comm on Intergov't Relations	-	-	-	-	1,360	-	680	680	-	-
Agency for Internat'l Development	315	-	315	-	8,826	-	2,145	840	807	5,034
Appalachian Regional Commission	-	-	-	-	1,000	-	-	-	-	1,000
Environmental Protection Agency	4,163	35	4,128	-	271	-	271	-	-	-
Federal Communications Commission	70	-	70	-	400	-	360	-	-	40
Office of Thrift Supervision	-	-	-	-	5,786	-	5,786	-	-	-
Federal Trade Commission	-	-	-	-	459	-	459	-	-	-
International Trade Commission	-	-	-	-	9,595	-	9,595	-	-	-
National Aeronautics & Space Admin	76,667	27,100	47,124	2,443	3,524	-	31	28	-	3,465
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	153,497	78,094	75,403	-	45,783	9,012	14,665	3,879	4,129	14,098
Smithsonian Institution	-	-	-	-	32,111	3,105	-	-	-	29,006
Tennessee Valley Authority	-	-	-	-	165	-	165	-	-	-
US Arms Control & Disarmament Agency	250	-	120	130	219	-	-	179	-	40

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-33. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	792,224	254,514	386,433	151,277	645,954	16,305	187,020	12,595	153,911	276,123
Departments										
Department of Agriculture, total	11,943	10,604	1,339	-	99,285	-	88,042	486	9,790	967
Agricultural Cooperative Service	-	-	-	-	2,811	-	2,811	-	-	-
Agricultural Research Service	1,488	149	1,339	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	30,955	-	23,271	-	7,684	-
Economic Research Service	-	-	-	-	56,262	-	54,000	169	1,126	967
Forest Service	7,225	7,225	-	-	9,257	-	7,960	317	980	-
Nat'l Agricultural Statistics Svc	3,230	3,230	-	-	-	-	-	-	-	-
Department of Commerce, total	15,565	5,143	7,102	3,320	1,799	-	981	588	-	230
Bureau of the Census	1,936	1,739	197	-	609	-	332	277	-	-
Nat'l Institute of Standards & Tech	11,738	2,746	5,672	3,320	177	-	177	-	-	-
Nat'l Oceanic & Atmospheric Admin	1,816	658	1,158	-	1,013	-	472	311	-	230
Nat'l Telecomm & Information Admin	75	-	75	-	-	-	-	-	-	-
Department of Defense, total	389,334	59,696	188,941	140,697	1,778	-	1,186	-	592	-
Department of the Army	32,198	6,175	22,431	3,592	1,778	-	1,186	-	592	-
Department of the Navy	86,264	25,651	49,417	11,196	-	-	-	-	-	-
Department of the Air Force	51,349	18,543	27,374	5,432	-	-	-	-	-	-
Defense agencies	219,523	9,327	89,719	120,477	-	-	-	-	-	-
Department of Education	535	-	-	535	120,540	-	-	-	1,385	119,155
Department of Energy	52,621	33,683	18,938	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	17,701	15,991	1,710	-	229,246	1,215	20,427	3,245	92,608	111,751
Alcohol, Drug Abuse & Mental Hlth Admin	1,912	658	1,254	-	95,419	1,215	4,224	3,009	65,231	21,740
Health Care Financing Admin	-	-	-	-	36,000	-	-	-	-	36,000
Human Development Services	-	-	-	-	11,854	-	-	-	-	11,854
National Institutes of Health	15,488	15,333	155	-	25,580	-	-	-	-	25,580
Office of Asst't Secy for Health	-	-	-	-	39,100	-	13,138	-	25,962	-
Office of the Secretary	301	-	301	-	4,716	-	3,065	236	1,415	-
Social Security Administration	-	-	-	-	16,577	-	-	-	-	16,577
Dept of Housing & Urban Development	4,473	-	4,473	-	12,621	-	6,500	-	686	5,435
Department of the Interior, total	12,656	2,001	10,655	-	2,945	1,200	-	-	1,000	745
Bureau of Reclamation	-	-	-	-	45	-	-	-	-	45
Geological Survey	12,506	2,001	10,505	-	-	-	-	-	-	-
National Park Service	150	-	150	-	2,900	1,200	-	-	1,000	700
Department of Justice, total	300	300	-	-	15,487	200	250	650	6,454	7,933
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,200	50	50	-	800	300
Office of Justice Programs	300	300	-	-	14,237	150	200	650	5,654	7,583
Department of Labor, total	-	-	-	-	23,385	-	23,385	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,200	-	7,200	-	-	-
Employment Standards Administration	-	-	-	-	221	-	221	-	-	-
Employment and Training Admin	-	-	-	-	6,693	-	6,693	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	70	-	70	-	-	-

Continued on next page

Table C-33. Federal obligations for research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Occupational Safety & Health Admin.	-	-	-	-	4,125	-	4,125	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	2,580	-	2,580	-	-	-
Office of the Secretary	-	-	-	-	2,181	-	2,181	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	315	-	315	-	-	-
Department of State, total	-	-	-	-	4,525	166	855	728	336	2,440
Departmental funds	-	-	-	-	4,525	166	855	728	336	2,440
Department of Transportation, total	7,273	468	2,805	4,000	10,864	-	1,991	1,217	7,656	-
Coast Guard	1,328	-	1,328	-	-	-	-	-	-	-
Federal Highway Administration	3,345	468	1,477	1,400	468	-	468	-	-	-
Federal Railroad Administration	-	-	-	-	1,234	-	1,234	-	-	-
Nat'l Highway Traffic Safety Admin.	2,600	-	-	2,600	8,873	-	-	1,217	7,656	-
Office of the Secretary	-	-	-	-	189	-	189	-	-	-
Research & Special Programs Admin.	-	-	-	-	100	-	100	-	-	-
Department of the Treasury, total	10,504	8,928	1,576	-	5,960	-	3,874	-	-	2,086
Internal Revenue Service	10,504	8,928	1,576	-	5,960	-	3,874	-	-	2,086
Other agencies										
Advisory Comm on Intergov't Relations	-	-	-	-	1,385	-	693	692	-	-
Agency for Internat'l Development	332	-	332	-	9,470	-	4,336	-	726	4,408
Appalachian Regional Commission	-	-	-	-	1,000	-	-	-	-	1,000
Environmental Protection Agency	9,802	38	9,764	-	345	-	345	-	-	-
Federal Communications Commission	150	-	150	-	108	-	108	-	-	-
Office of Thrift Supervision	-	-	-	-	6,360	-	6,360	-	-	-
Federal Trade Commission	-	-	-	-	477	-	477	-	-	-
International Trade Commission	-	-	-	-	10,500	-	10,500	-	-	-
National Aeronautics & Space Admin	86,165	29,977	53,763	2,425	3,988	-	33	31	-	3,924
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	172,345	87,660	84,685	-	51,483	10,117	16,512	4,358	4,647	15,849
Smithsonian Institution	-	-	-	-	31,438	3,407	-	-	28,031	-
Tennessee Valley Authority	-	-	-	-	165	-	165	-	-	-
US Arms Control & Disarmament Agency	500	-	100	300	800	-	-	600	-	200

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-34. Federal obligations for basic research, by agency and performer: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	10,602,011	2,370,657	773,233	166,653	5,221,354	1,098,059	838,871	42,192	43,553	47,439
Departments										
Department of Agriculture, total	484,928	323,618	382	-	154,200	493	2,851	-	628	2,756
Agricultural Research Service	282,696	264,833	-	-	14,161	-	1,880	-	66	1,756
Cooperative State Research Service	142,605	7,201	259	-	133,754	493	560	-	338	-
Economic Research Service	6,931	6,695	-	-	236	-	-	-	-	-
Forest Service	50,000	43,193	123	-	6,049	-	411	-	224	-
Nat'l Agriculutural Statistical Svc	953	953	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	1,743	743	-	-	-	-	-	-	-	1,000
Department of Commerce, total	29,099	25,036	294	-	3,514	107	148	-	-	-
Bureau of the Census	1,163	194	-	-	969	-	-	-	-	-
Nat'l Institute of Standards & Tech	27,936	24,842	294	-	2,545	107	148	-	-	-
Department of Defense, total	947,927	292,277	91,773	648	511,857	12,339	27,049	1,027	-	10,957
Department of the Army	187,168	97,464	22,091	150	61,303	751	3,281	210	-	1,918
Department of the Navy	354,037	127,391	21,070	135	184,067	1,170	15,514	70	-	4,620
Department of the Air Force	202,804	61,092	19,191	288	111,048	2,159	4,804	-	-	4,222
Defense agencies	203,918	6,330	29,421	75	155,439	8,259	3,450	747	-	197
Department of Education	4,439	360	-	-	4,054	-	25	-	-	-
Department of Energy	1,410,902	48,762	26,734	154,088	301,409	775,034	68,208	35,684	268	715
Dept of Hlth & Human Services, total	4,388,007	800,497	162,138	7,891	2,727,729	17,324	604,661	3,248	37,820	26,699
Alcohol, Drug Abuse & Mental Hlth Admin	307,980	95,385	7,183	-	167,479	-	28,220	-	8,411	1,302
Health Resources and Services Administration	1,180	1,180	-	-	-	-	-	-	-	-
National Institutes of Health	4,053,297	695,471	148,775	7,891	2,551,559	17,324	574,602	3,248	29,180	25,247
Office of Asst't Secy for Health	25,550	8,461	6,180	-	8,691	-	1,839	-	229	150
Department of the Interior, total	188,907	158,938	4,364	3,550	20,929	-	-	-	1,126	-
Bureau of Mines	43,941	25,462	4,288	3,550	10,606	-	-	-	35	-
Bureau of Reclamation	2	2	-	-	-	-	-	-	-	-
Geological Survey	140,164	130,066	76	-	8,931	-	-	-	1,091	-
Us Fish & Wildlife Service	4,800	3,408	-	-	1,392	-	-	-	-	-
Department of Justice, total	6,797	750	389	-	1,705	-	3,022	-	810	121
Office of Justice Programs	6,797	750	389	-	1,705	-	3,022	-	810	121
Department of Labor, total	318	16	-	-	-	-	302	-	-	-
Employment and Training Admin	318	16	-	-	-	-	302	-	-	-
Department of State, total	3,437	42	-	-	340	-	3,055	-	-	-
Departmental funds	3,437	42	-	-	340	-	3,055	-	-	-
Department of the Treasury, total	3,358	2,546	592	-	220	-	-	-	-	-
Bureau of Engraving and Printing	473	473	-	-	-	-	-	-	-	-
Internal Revenue Service	2,885	2,073	592	-	220	-	-	-	-	-
Department of Veterans Affairs	16,600	16,600	-	-	-	-	-	-	-	-
Other agencies										
Agency for internat'l Development	3,060	91	-	-	683	-	2,156	-	-	150
Environmental Protection Agency	50,711	7,143	20,617	-	22,789	162	-	-	-	-
Library of Congress	367	367	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	1,417,410	453,571	420,412	-	298,712	197,589	39,264	1,856	1,520	4,486
National Archives	55	55	-	-	-	-	-	-	-	-
National Science Foundation	1,562,629	156,928	45,538	476	1,173,233	95,011	88,130	377	1,381	1,555
Smithsonian Institution	80,152	80,152	-	-	-	-	-	-	-	-
Tennessee Valley Authority	2,908	2,908	-	-	-	-	-	-	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-35. Federal obligations for basic research, by agency and performer: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	11,347,593	2,573,026	958,838	176,485	5,376,702	1,146,153	962,880	55,400	48,491	49,618
Departments										
Department of Agriculture, total	513,088	344,760	375	-	161,552	493	2,901	-	610	2,397
Agricultural Research Service	295,339	276,989	-	-	14,794	-	1,964	-	70	1,522
Cooperative State Research Service	149,856	7,690	259	-	140,517	493	560	-	337	-
Economic Research Service	7,145	7,067	-	-	78	-	-	-	-	-
Forest Service	50,100	51,241	116	-	6,163	-	377	-	203	-
Nat'l Agricultural Statistical Svc	1,017	1,017	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	1,631	756	-	-	-	-	-	-	-	875
Department of Commerce, total	30,109	26,500	303	-	2,944	110	152	-	-	-
Bureau of the Census	583	226	-	-	323	-	-	-	-	-
Nat'l Institute of Standards & Tech	29,460	26,274	303	-	2,621	110	152	-	-	-
Department of Defense, total	892,185	283,508	64,991	429	499,333	7,320	23,105	2,063	-	11,436
Department of the Army	176,583	103,175	6,312	-	59,565	938	4,091	167	-	2,335
Department of the Navy	353,997	132,803	12,846	-	190,129	1,357	12,055	-	-	4,807
Department of the Air Force	177,379	41,827	18,745	281	105,601	2,109	4,692	-	-	4,124
Defense agencies	184,226	5,703	27,088	148	144,038	2,916	2,267	1,896	-	170
Department of Education	4,995	398	-	-	4,578	-	19	-	-	-
Department of Energy	1,530,979	48,938	47,463	162,821	316,561	817,121	89,372	47,343	398	962
Dept of Hlth & Human Services, total	4,661,681	916,037	188,957	9,086	2,756,169	19,715	694,439	3,772	43,178	30,328
Alcohol, Drug Abuse & Mental Hlth Admin	357,512	110,701	8,262	-	195,003	-	32,149	-	9,920	1,477
Health Resources and Services Administration	1,119	1,119	-	-	-	-	-	-	-	-
National Institutes of Health	4,257,500	793,912	169,891	9,086	2,543,158	19,715	655,907	3,772	33,258	28,801
Office of Asst't Secy for Health	45,550	10,305	10,804	-	18,008	-	6,383	-	-	50
Department of the Interior, total	200,273	167,689	4,407	3,593	23,584	-	-	-	1,000	-
Bureau of Mines	42,922	26,165	4,407	3,593	8,757	-	-	-	-	-
Geological Survey	153,151	138,600	-	-	13,551	-	-	-	1,000	-
Us Fish & Wildlife Service	4,200	2,924	-	-	1,276	-	-	-	-	-
Department of Justice, total	8,955	270	-	-	2,558	-	5,677	-	450	-
Office of Justice Programs	8,955	270	-	-	2,558	-	5,677	-	450	-
Department of Labor, total	290	20	-	-	-	-	270	-	-	-
Employment and Training Admin	290	20	-	-	-	-	270	-	-	-
Department of State, total	3,321	43	-	-	330	-	2,948	-	-	-
Departmental funds	3,321	43	-	-	330	-	2,948	-	-	-
Department of the Treasury, total	3,585	2,399	1,186	-	-	-	-	-	-	-
Bureau of Engraving and Printing	225	225	-	-	-	-	-	-	-	-
Internal Revenue Service	3,360	2,174	1,186	-	-	-	-	-	-	-
Department of Veterans Affairs	16,200	16,200	-	-	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	5,302	46	-	-	557	-	4,699	-	-	-
Environmental Protection Agency	75,623	7,380	30,955	-	37,038	250	-	-	-	-
Library of Congress	313	313	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	1,659,200	502,738	562,325	-	339,582	201,140	45,611	1,845	1,464	4,495
National Archives	55	55	-	-	-	-	-	-	-	-
National Science Foundation	1,651,009	165,202	57,876	556	1,231,916	100,004	93,387	377	1,391	-
Smithsonian Institution	87,516	87,516	-	-	-	-	-	-	-	-
Tennessee Valley Authority	3,014	3,014	-	-	-	-	-	-	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-36. Federal obligations for basic research, by agency and performer: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	12,254,557	2,782,314	1,042921	193,863	5,720,803	1,266,858	1,077153	67,648	51,362	51,635
Departments										
Department of Agriculture, total	546,789	364,862	387	-	175,802	493	3,087	-	636	1,522
Agricultural Research Service	317,417	297,809	-	-	15,900	-	2,111	-	75	1,522
Cooperative State Research Service	162,898	8,225	259	-	153,024	493	560	-	337	-
Economic Research Service	7,877	7,799	-	-	78	-	-	-	-	-
Forest Service	56,500	48,932	128	-	6,800	-	416	-	224	-
Nat'l Agriculutural Statistical Svc	1,063	1,063	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	1,034	1,034	-	-	-	-	-	-	-	-
Department of Commerce, total	32,712	28,683	736	-	3,023	113	157	-	-	-
Bureau of the Census	548	225	-	-	323	-	-	-	-	-
Nat'l Institute of Standards & Tech	32,164	28,458	736	-	2,700	113	157	-	-	-
Department of Defense, total	972,219	310,195	87,977	1,085	528,771	7,539	24,094	242	-	12,316
Department of the Army	190,640	108,090	15,003	-	59,555	951	4,170	242	-	2,629
Department of the Navy	399,289	150,941	18,320	-	211,664	1,096	12,265	-	-	5,003
Department of the Air Force	201,406	45,283	26,560	305	117,430	2,283	5,080	-	-	4,465
Defense agencies	180,884	5,881	28,094	780	140,122	3,209	2,579	-	-	219
Department of Education	6,854	497	-	-	5,689	-	650	18	-	-
Department of Energy	1,677,172	45,955	42,194	179,675	306,769	899,445	141,053	61,105	133	843
Dept of Hlth & Human Services, total	4,940,404	989,310	201,406	9,740	2,891,957	21,135	744,007	4,043	46,250	32,556
Alcohol, Drug Abuse & Mental Hlth Admin	398,523	125,773	9,798	-	215,249	-	35,476	-	10,596	1,631
Health Resources and Services Administration	1,131	1,131	-	-	-	-	-	-	-	-
National Institutes of Health	4,501,100	851,096	182,128	9,740	2,663,278	21,135	703,151	4,043	35,654	30,875
Office of Asst't Secy for Health	39,650	11,310	9,480	-	13,430	-	5,380	-	-	50
Department of the Interior, total	191,099	173,896	-	2,700	13,503	-	-	-	1,000	-
Bureau of Land Management	1,300	600	-	-	700	-	-	-	-	-
Bureau of Mines	32,144	25,094	-	2,700	4,350	-	-	-	-	-
Bureau of Reclamation	47	47	-	-	-	-	-	-	-	-
Geological Survey	152,608	145,449	-	-	6,159	-	-	-	1,000	-
Us Fish & Wildlife Service	5,000	2,706	-	-	2,294	-	-	-	-	-
Department of Justice, total	6,083	1	-	-	1,800	-	3,782	-	500	-
Office of Justice Programs	6,083	1	-	-	1,800	-	3,782	-	500	-
Department of Labor, total	291	25	-	-	-	-	266	-	-	-
Employment and Training Admin	291	25	-	-	-	-	266	-	-	-
Department of State, total	3,319	55	-	-	326	-	2,938	-	-	-
Departmental funds	3,319	55	-	-	326	-	2,938	-	-	-
Department of the Treasury, total	3,487	2,301	986	-	200	-	-	-	-	-
Bureau of Engraving and Printing	127	127	-	-	-	-	-	-	-	-
Internal Revenue Service	3,360	2,174	986	-	200	-	-	-	-	-
Department of Veterans Affairs	15,200	15,200	-	-	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	1,556	5	-	-	414	-	1,137	-	-	-
Environmental Protection Agency	97,602	12,894	40,675	-	43,683	350	-	-	-	-
Library of Congress	901	901	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	1,803,300	559,023	592,657	-	367,135	227,086	49,864	1,862	1,275	4,398
National Archives	216	216	-	-	-	-	-	-	-	-
National Science Foundation	1,853,209	176,151	75,903	663	1,381,731	110,697	106,118	378	1,568	-
Smithsonian Institution	100,145	100,145	-	-	-	-	-	-	-	-
Tennessee Valley Authority	1,999	1,999	-	-	-	-	-	-	-	-

1/ Includes costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-37. Federal obligations for basic research, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of science/engineering	1989	Estimates	
		1990	1991
Total, all fields	10,602,011	11,347,593	12,254,557
Life sciences, total	4,915,721	5,203,238	5,589,382
Biological (excluding environmental)	2,647,192	2,803,788	3,040,323
Environmental biology	157,342	168,233	177,859
Agricultural	298,350	319,455	346,685
Medical	1,708,392	1,800,772	1,905,919
Life sciences, n.e.c	104,445	110,990	118,616
Psychology, total	187,135	202,221	221,414
Biological aspects	61,043	66,296	72,976
Social aspects	38,088	43,879	51,734
Psychological sciences, n.e.c.	88,004	92,046	96,704
Physical sciences, total	2,506,466	2,696,512	2,966,327
Astronomy	524,643	556,483	576,633
Chemistry	504,631	532,475	544,785
Physics	1,395,314	1,520,412	1,699,196
Physical sciences, n.e.c.	81,878	87,142	145,713
Environmental sciences, total	1,016,909	1,184,240	1,328,223
Atmospheric	316,396	388,720	495,646
Geological	334,926	371,415	383,315
Oceanography	293,533	316,576	372,652
Environmental sciences, n.e.c.	72,054	97,529	76,610
Mathematics & computer sciences, total	345,782	355,968	378,732
Mathematics	167,789	170,632	185,734
Computer sciences	159,544	161,421	172,796
Mathematics & computer sciences, n.e.c.	18,449	23,913	20,202
Engineering, total	1,183,717	1,198,721	1,253,339
Aeronautical	327,892	336,992	298,505
Astronautical	58,867	64,288	67,174
Chemical	50,081	57,968	64,093
Civil	51,656	49,722	55,407
Electrical	173,838	164,717	180,331
Mechanical	100,832	100,491	108,985
Metallurgy & materials	254,840	266,124	300,116
Engineering, n.e.c.	165,711	158,421	158,748
Social sciences, total	154,620	188,153	189,026
Anthropology	12,084	12,716	14,158
Economics	37,695	46,128	44,424
Political science	5,426	6,453	6,353
Sociology	38,196	54,111	81,333
Social sciences, n.e.c.	61,219	68,745	42,768
Other sciences, n.e.c.	291,661	318,542	328,104

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-38. Federal obligations for basic research, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	10,602,011	4,915,721	187,135	2,506,466	1,016,909	345,782	1,183,717	154,620	291,661
Departments									
Department of Agriculture, total	484,928	411,517	95	33,686	4,795	3,956	11,726	19,153	-
Agricultural Research Service	282,696	253,856	-	24,951	1,079	498	2,512	-	-
Cooperative State Research Service	142,605	123,878	-	5,115	351	-	4,249	9,012	-
Economic Research Service	8,931	-	-	-	-	-	-	8,931	-
Forest Service	50,000	32,240	95	3,620	3,365	2,505	4,965	3,210	-
Nat'l Agricultural Statistics Svc	953	-	-	-	-	953	-	-	-
Off of Internat'l Cooperation & Development	1,743	1,743	-	-	-	-	-	-	-
Department of Commerce, total	29,099	-	221	22,621	118	1,285	4,854	-	-
Bureau of the Census	1,163	-	221	-	-	942	-	-	-
Nat'l Institute of Standards & Tech	27,936	-	-	22,621	118	343	4,854	-	-
Department of Defense, total	947,927	98,534	31,552	175,102	142,629	119,084	374,077	-	6,949
Department of the Army	187,168	47,501	6,839	36,110	11,273	9,866	75,399	-	180
Department of the Navy	354,037	28,969	13,462	70,205	97,488	33,549	103,744	-	6,620
Department of the Air Force	202,804	10,849	10,180	52,188	13,570	27,303	88,714	-	-
Defense agencies	203,918	11,215	1,071	16,599	20,298	48,366	106,220	-	149
Department of Education	4,439	1,479	-	-	-	-	-	2,960	-
Department of Energy	1,410,902	165,626	-	1,008,385	81,748	42,127	111,778	-	1,238
Dept of Hlth & Human Services, total	4,388,007	3,856,937	138,128	90,954	-	9,883	49,524	59,518	183,063
Alcohol, Drug Abuse & Mental Hlth Admin	307,980	196,831	78,791	3,928	-	723	616	21,073	4,018
Health Resources and Services Administration	1,180	1,180	-	-	-	-	-	-	-
National Institutes of Health	4,053,297	3,656,876	59,337	87,026	-	9,160	48,908	12,945	179,045
Office of Ass't Secy for Health	25,550	50	-	-	-	-	-	25,500	-
Department of the Interior, total	186,907	4,800	-	9,467	131,442	2,185	41,013	-	-
Bureau of Mines	43,941	-	-	-	2,930	-	41,011	-	-
Bureau of Reclamation	2	-	-	-	-	-	2	-	-
Geological Survey	140,164	-	-	9,467	128,512	2,185	-	-	-
US Fish & Wildlife Service	4,800	4,800	-	-	-	-	-	-	-
Department of Justice, total	6,797	200	200	-	-	100	-	5,081	1,216
Office of Justice Programs	6,797	200	200	-	-	100	-	5,081	1,216
Department of Labor, total	318	-	-	-	-	-	-	318	-
Employment and Training Admin	318	-	-	-	-	-	-	318	-
Department of State, total	3,437	-	-	-	-	-	-	3,437	-
Departmental Funds	3,437	-	-	-	-	-	-	3,437	-
Department of the Treasury, total	3,358	-	-	473	-	1,841	-	1,044	-
Bureau of Engraving and Printing	473	-	-	473	-	-	-	-	-
Internal Revenue Service	2,885	-	-	-	-	1,841	-	1,044	-
Department of Veterans Affairs	16,600	15,144	1,456	-	-	-	-	-	-
Other agencies									
Agency for Internat'l Development	3,060	1,881	-	-	-	-	-	271	908
Environmental Protection Agency	50,711	21,200	-	8,453	8,956	-	14,102	-	-
Library of Congress	367	-	-	-	-	-	-	-	367
National Aeronautics & Space Admin	1,417,410	38,982	3,054	719,127	223,245	24,351	399,675	215	8,761
National Archives	55	-	-	55	-	-	-	-	-
National Science Foundation	1,562,629	267,810	12,429	422,176	417,868	140,970	176,968	35,249	89,159
Smithsonian Institution	80,152	30,222	-	16,448	6,108	-	-	27,374	-
Tennessee Valley Authority	2,908	1,389	-	1,519	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-38. Federal obligations for basic research, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	11,347,593	5,203,238	202,221	2,696,512	1,184,240	355,966	1,198,721	188,153	318,542
Departments									
Department of Agriculture, total	513,088	436,763	110	33,879	5,281	4,528	12,353	20,174	-
Agricultural Research Service	295,339	267,096	-	24,462	1,018	600	2,163	-	-
Cooperative State Research Service	149,856	130,573	-	5,211	352	-	4,421	9,299	-
Economic Research Service	7,145	-	-	-	-	-	-	7,145	-
Forest Service	58,100	37,463	110	4,206	3,911	2,911	5,769	3,730	-
Nat'l Agricultural Statistics Svc	1,017	-	-	-	-	1,017	-	-	-
Off of International Cooperation & Development	1,631	1,631	-	-	-	-	-	-	-
Department of Commerce, total	30,009	-	104	23,596	118	714	5,477	-	-
Bureau of the Census	549	-	104	-	-	445	-	-	-
Nat'l Institute of Standards & Tech	29,460	-	-	23,596	118	269	5,477	-	-
Department of Defense, total	892,185	96,607	30,287	157,513	137,776	116,267	336,556	-	17,179
Department of the Army	176,583	46,427	6,081	30,702	12,564	12,170	68,395	-	244
Department of the Navy	353,997	30,917	13,571	70,393	98,357	33,129	100,870	-	6,760
Department of the Air Force	177,379	9,316	9,173	45,953	12,070	20,613	80,254	-	-
Defense agencies	184,226	9,947	1,462	10,465	14,785	50,355	87,037	-	10,175
Department of Education	4,995	1,479	-	-	-	-	-	3,516	-
Department of Energy	1,530,979	178,693	-	1,067,409	120,801	43,706	119,083	-	1,287
Dept of Hlth & Human Services, total	4,661,681	4,072,209	154,431	95,929	-	10,511	52,129	83,727	192,745
Alcohol, Drug Abuse & Mental Hlth Admin	357,512	229,423	92,101	4,521	-	889	741	25,146	4,691
Health Resources and Services Administration	1,119	1,119	-	-	-	-	-	-	-
National Institutes of Health	4,257,500	3,841,117	62,330	91,408	-	9,622	51,388	13,581	188,054
Office of Ass't Secy for Health	45,550	550	-	-	-	-	-	45,000	-
Department of the Interior, total	200,273	4,200	-	10,181	144,759	2,349	38,784	-	-
Bureau of Mines	42,922	-	-	-	4,138	-	38,784	-	-
Geological Survey	153,151	-	-	10,181	140,621	2,349	-	-	-
US Fish & Wildlife Service	4,200	4,200	-	-	-	-	-	-	-
Department of Justice, total	8,955	100	100	-	-	100	-	5,913	2,742
Office of Justice Programs	8,955	100	100	-	-	100	-	5,913	2,742
Department of Labor, total	290	-	-	-	-	-	-	290	-
Employment and Training Admin	290	-	-	-	-	-	-	290	-
Department of State, total	3,321	-	-	-	-	-	-	3,321	-
Departmental Funds	3,321	-	-	-	-	-	-	3,321	-
Department of the Treasury, total	3,585	-	-	225	-	2,144	-	1,216	-
Bureau of Engraving and Printing	225	-	-	225	-	-	-	-	-
Internal Revenue Service	3,360	-	-	-	-	2,144	-	1,216	-
Department of Veterans Affairs	16,200	15,641	559	-	-	-	-	-	-
Other agencies									
Agency for International Development	5,302	5,123	-	-	-	-	-	140	39
Environmental Protection Agency	75,623	30,643	-	11,531	16,020	165	17,035	229	-
Library of Congress	313	-	-	-	-	-	-	-	313
National Aeronautics & Space Admin	1,659,200	46,832	3,438	830,312	311,384	26,539	430,326	274	10,035
National Archives	55	-	-	55	-	-	-	-	-
National Science Foundation	1,651,009	282,957	13,132	446,053	441,502	148,943	186,978	37,242	94,202
Smithsonian Institution	87,516	30,597	-	18,209	6,599	-	-	32,111	-
Tennessee Valley Authority	3,014	1,394	-	1,620	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-40. Federal obligations for basic research, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	12,254,557	5,589,382	221,414	2,966,327	1,328,223	378,732	1,253,339	189,036	328,104
Departments									
Department of Agriculture, total	546,789	472,197	107	34,648	5,202	4,540	11,230	18,865	-
Agricultural Research Service	317,417	287,061	-	26,291	1,094	646	2,325	-	-
Cooperative State Research Service	162,898	147,671	-	4,266	305	-	3,295	7,361	-
Economic Research Service	7,877	-	-	-	-	-	-	7,877	-
Forest Service	56,500	36,431	107	4,091	3,803	2,831	5,610	3,627	-
Nat'l Agricultural Statistics Svc	1,063	-	-	-	-	1,063	-	-	-
Off of Internat'l Cooperation & Development	1,034	1,034	-	-	-	-	-	-	-
Department of Commerce, total	32,712	-	103	24,869	120	865	6,755	-	-
Bureau of the Census	548	-	103	-	-	445	-	-	-
Nat'l Institute of Standards & Tech	32,164	-	-	24,869	120	420	6,755	-	-
Department of Defense, total	972,219	111,320	33,153	182,755	146,372	107,827	386,079	-	4,713
Department of the Army	190,640	53,909	6,425	35,053	13,044	13,372	68,610	-	227
Department of the Navy	399,289	34,407	15,328	82,246	108,861	37,642	116,319	-	4,486
Department of the Air Force	201,406	10,102	9,928	53,945	13,248	22,343	91,840	-	-
Defense agencies	180,884	12,902	1,472	11,511	11,219	34,470	109,310	-	-
Department of Education	6,854	1,479	-	-	-	-	-	5,375	-
Department of Energy	1,677,172	203,262	-	1,174,689	133,185	47,975	116,834	-	1,227
Dept of Hlth & Human Services, total	4,940,404	4,318,014	168,891	102,200	-	11,136	55,114	81,030	204,019
Alcohol, Drug Abuse & Mental Hlth Admin	398,523	255,441	102,995	5,561	-	964	786	27,571	5,205
Health Resources and Services Administration	1,131	1,131	-	-	-	-	-	-	-
National Institutes of Health	4,501,100	4,060,892	65,896	96,639	-	10,172	54,328	14,359	198,814
Office of Ass't Secy for Health	39,650	550	-	-	-	-	-	39,100	-
Department of the Interior, total	191,099	6,000	-	11,203	141,800	2,585	29,511	-	-
Bureau of Land Management	1,300	1,000	-	-	300	-	-	-	-
Bureau of Mines	32,144	-	-	-	2,680	-	29,464	-	-
Bureau of Reclamation	47	-	-	-	-	-	47	-	-
Geological Survey	152,608	-	-	11,203	138,820	2,585	-	-	-
US Fish & Wildlife Service	5,000	5,000	-	-	-	-	-	-	-
Department of Justice, total	6,083	100	100	-	-	100	-	5,083	700
Office of Justice Programs	6,083	100	100	-	-	100	-	5,083	700
Department of Labor, total	291	-	-	-	-	-	-	291	-
Employment and Training Admin	291	-	-	-	-	-	-	291	-
Department of State, total	3,319	-	-	-	-	-	-	3,319	-
Departmental Funds	3,319	-	-	-	-	-	-	3,319	-
Department of the Treasury, total	3,487	-	-	127	-	2,144	-	1,216	-
Bureau of Engraving and Printing	127	-	-	127	-	-	-	-	-
Internal Revenue Service	3,360	-	-	-	-	2,144	-	1,216	-
Department of Veterans Affairs	15,200	14,641	559	-	-	-	-	-	-
Other agencies									
Agency for Internat'l Development	1,556	1,519	-	-	-	-	-	-	37
Environmental Protection Agency	97,602	43,313	-	16,477	13,130	4,010	20,336	336	-
Library of Congress	901	-	-	-	-	-	-	-	901
National Aeronautics & Space Admin	1,803,300	63,136	3,761	891,696	385,691	30,366	417,603	280	10,767
National Archives	216	-	-	216	-	-	-	-	-
National Science Foundation	1,853,209	317,611	14,740	500,681	495,573	167,184	209,877	41,803	105,740
Smithsonian Institution	100,145	35,659	-	25,898	7,150	-	-	31,438	-
Tennessee Valley Authority	1,999	1,131	-	868	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-41. Federal obligations for basic research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	187,135	61,043	38,088	88,004	4,915,721	2,647,192	157,342	298,350	1,708,392	104,445
Departments										
Department of Agriculture, total	95	-	95	-	411,517	55,548	50,572	292,976	12,421	-
Agricultural Research Service	-	-	-	-	253,656	15,909	16,063	215,707	5,977	-
Cooperative State Research Service	-	-	-	-	123,878	26,879	15,029	75,526	6,444	-
Forest Service	95	-	95	-	32,240	12,760	19,480	-	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	1,743	-	-	1,743	-	-
Department of Commerce, total	221	-	221	-	-	-	-	-	-	-
Bureau of the Census	221	-	221	-	-	-	-	-	-	-
Department of Defense, total	31,552	9,420	5,792	16,340	98,534	40,136	5,196	-	53,202	-
Department of the Army	6,839	104	4,384	2,351	47,501	5,110	615	-	41,776	-
Department of the Navy	13,462	6,922	1,408	5,132	28,969	16,740	2,280	-	9,949	-
Department of the Air Force	10,180	1,323	-	8,857	10,849	10,065	784	-	-	-
Defense agencies	1,071	1,071	-	-	11,215	8,221	1,517	-	1,477	-
Department of Education	-	-	-	-	1,479	-	-	-	-	1,479
Department of Energy	-	-	-	-	165,626	150,350	502	-	380	14,394
Dept of Hlth & Human Services, total	138,128	41,920	27,270	68,938	3,856,937	2,151,231	365	316	1,620,482	84,543
Alcohol, Drug Abuse & Mental Hlth Admin	78,791	41,920	27,270	9,601	198,831	124,347	316	316	67,470	6,382
Health Resources and Services Administration	-	-	-	-	1,180	-	-	-	1,180	-
National Institutes of Health	59,337	-	-	59,337	3,656,876	2,026,884	49	-	1,551,782	78,161
Office of Ass't Secy for Health	-	-	-	-	50	-	-	-	50	-
Department of the Interior, total	-	-	-	-	4,800	3,744	1,056	-	-	-
US Fish & Wildlife Service	-	-	-	-	4,800	3,744	1,056	-	-	-
Department of Justice, total	200	-	100	100	200	200	-	-	-	-
Office of Justice Programs	200	-	100	100	200	200	-	-	-	-
Department of Veterans Affairs	1,456	1,456	-	-	15,144	1,791	-	-	13,353	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	1,881	-	275	1,538	68	-
Environmental Protection Agency	-	-	-	-	21,200	7,514	8,480	1,778	3,428	-
National Aeronautics & Space Admin	3,054	84	806	2,164	38,982	27,839	2,057	353	5,058	3,675
National Science Foundation	12,429	8,163	3,804	462	267,810	194,804	72,652	-	-	354
Smithsonian Institution	-	-	-	-	30,222	14,035	16,187	-	-	-
Tennessee Valley Authority	-	-	-	-	1,389	-	-	1,389	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-42. Federal obligations for basic research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	202,221	66,296	43,879	92,046	5,203,238	2,803,788	168,233	319,455	1,800,772	110,990
Departments										
Department of Agriculture, total	110	-	110	-	436,763	59,188	55,885	308,711	12,979	-
Agricultural Research Service	-	-	-	-	267,096	16,595	17,162	227,207	6,132	-
Cooperative State Research Service	-	-	-	-	130,573	27,766	16,087	79,873	6,847	-
Forest Service	110	-	110	-	37,463	14,827	22,636	-	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	1,631	-	-	1,631	-	-
Department of Commerce, total	104	-	104	-	-	-	-	-	-	-
Bureau of the Census	104	-	104	-	-	-	-	-	-	-
Department of Defense, total	30,287	8,185	6,462	15,640	96,607	38,128	5,153	-	53,326	-
Department of the Army	6,081	120	3,578	2,383	46,427	4,445	807	-	41,175	-
Department of the Navy	13,571	6,976	1,422	5,173	30,917	18,208	2,298	-	10,411	-
Department of the Air Force	9,173	1,089	-	8,084	9,316	6,907	1,981	-	428	-
Defense agencies	1,462	-	1,462	-	9,947	8,568	67	-	1,312	-
Department of Education	-	-	-	-	1,479	-	-	-	-	1,479
Department of Energy	-	-	-	-	178,693	162,918	619	-	391	14,765
Dept of Hlth & Human Services, total	154,431	48,832	32,168	73,431	4,072,209	2,271,491	412	369	1,710,095	89,842
Alcohol, Drug Abuse & Mental Hlth Admin	92,101	48,832	32,168	11,101	229,423	142,486	369	369	78,485	7,714
Health Resources and Services Administration	-	-	-	-	1,119	-	-	-	1,119	-
National Institutes of Health	62,330	-	-	62,330	3,841,117	2,129,005	43	-	1,629,941	82,128
Office of Ass't Secy for Health	-	-	-	-	550	-	-	-	550	-
Department of the Interior, total	-	-	-	-	4,200	2,940	1,260	-	-	-
US Fish & Wildlife Service	-	-	-	-	4,200	2,940	1,260	-	-	-
Department of Justice, total	100	-	100	-	100	100	-	-	-	-
Office of Justice Programs	100	-	100	-	100	100	-	-	-	-
Department of Veterans Affairs	559	559	-	-	15,641	2,501	-	-	13,140	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	5,123	-	-	5,063	60	-
Environmental Protection Agency	-	-	-	-	30,643	12,121	9,974	3,517	5,031	-
National Aeronautics & Space Admin	3,498	95	916	2,487	46,832	34,379	1,772	401	5,750	4,530
National Science Foundation	13,132	8,625	4,019	488	282,957	205,822	76,761	-	-	374
Smithsonian Institution	-	-	-	-	30,597	14,200	16,397	-	-	-
Tennessee Valley Authority	-	-	-	-	1,394	-	-	1,394	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-43. Federal obligations for basic research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	221,414	72,976	51,734	96,704	5,589,382	3,040,323	177,859	346,665	1,905,919	118,616
Departments										
Department of Agriculture, total	107	-	107	-	472,197	71,106	52,543	339,643	8,905	-
Agricultural Research Service	-	-	-	-	287,061	17,835	18,445	244,190	6,591	-
Cooperative State Research Service	-	-	-	-	147,671	38,852	12,086	94,419	2,314	-
Forest Service	107	-	107	-	36,431	14,419	22,012	-	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	1,034	-	-	1,034	-	-
Department of Commerce, total	103	-	103	-	-	-	-	-	-	-
Bureau of the Census	103	-	103	-	-	-	-	-	-	-
Department of Defense, total	33,153	8,922	10,148	14,083	111,320	42,720	6,820	-	61,780	-
Department of the Army	6,425	125	3,403	2,897	53,909	4,546	516	-	48,847	-
Department of the Navy	15,328	7,519	2,059	5,650	34,407	20,820	2,506	-	11,081	-
Department of the Air Force	9,928	1,178	3,214	5,536	10,102	7,475	2,144	-	483	-
Defense agencies	1,472	-	1,472	-	12,902	9,879	1,654	-	1,369	-
Department of Education	-	-	-	-	1,479	-	-	-	-	1,479
Department of Energy	-	-	-	-	203,262	185,636	235	-	381	17,010
Dept of Hlth & Human Services, total	168,891	53,711	35,774	79,406	4,318,014	2,412,420	454	409	1,809,540	95,191
Alcohol, Drug Abuse & Mental Hlth Admin	102,995	53,711	35,774	13,510	255,441	161,600	409	409	84,613	8,410
Health Resources and Services Administration	-	-	-	-	1,131	-	-	-	1,131	-
National Institutes of Health	65,896	-	-	65,896	4,060,892	2,250,820	45	-	1,723,246	86,781
Office of Ass't Secy for Health	-	-	-	-	550	-	-	-	550	-
Department of the Interior, total	-	-	-	-	6,000	3,500	2,500	-	-	-
Bureau of Land Management	-	-	-	-	1,000	400	600	-	-	-
US Fish & Wildlife Service	-	-	-	-	5,000	3,100	1,900	-	-	-
Department of Justice, total	100	-	100	-	100	100	-	-	-	-
Office of Justice Programs	100	-	100	-	100	100	-	-	-	-
Department of Veterans Affairs	559	559	-	-	14,641	2,401	-	-	12,240	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	1,519	-	-	1,519	-	-
Environmental Protection Agency	-	-	-	-	43,313	25,957	6,971	3,529	6,856	-
National Aeronautics & Space Admin	3,761	103	991	2,667	63,136	49,344	2,625	434	6,217	4,516
National Science Foundation	14,740	9,681	4,511	548	317,611	231,029	86,162	-	-	420
Smithsonian Institution	-	-	-	-	35,659	16,110	19,549	-	-	-
Tennessee Valley Authority	-	-	-	-	1,131	-	-	1,131	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-44. Federal obligations for basic research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	2,506,466	524,643	504,631	1,395,314	81,878	1,016909	316,396	334,926	293,533	72,054
Departments										
Department of Agriculture, total	33,686	-	31,893	1,793	-	4,795	1,910	2,885	-	-
Agricultural Research Service	24,951	-	23,843	1,108	-	1,079	939	140	-	-
Cooperative State Research Service	5,115	-	5,115	-	-	351	351	-	-	-
Forest Service	3,620	-	2,935	685	-	3,365	620	2,745	-	-
Department of Commerce, total	22,621	335	9,147	13,139	-	118	-	118	-	-
Nat'l Institute of Standards & Tech	22,621	335	9,147	13,139	-	118	-	118	-	-
Department of Defense, total	175,102	11,032	69,150	88,722	6,198	142,629	33,979	38,972	68,863	815
Department of the Army	36,110	-	15,531	14,717	5,862	11,273	7,698	2,760	-	815
Department of the Navy	70,205	4,177	24,746	40,946	336	97,488	12,167	27,193	58,128	-
Department of the Air Force	52,188	6,710	24,425	21,053	-	13,570	11,813	1,757	-	-
Defense agencies	16,599	145	4,448	12,006	-	20,298	2,301	7,262	10,735	-
Department of Energy	1,008,385	-	135,109	873,276	-	81,748	28,809	45,873	6,559	507
Dept of Hlth & Human Services, total	90,954	-	81,761	9,042	151	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	3,928	-	3,876	52	-	-	-	-	-	-
National Institutes of Health	87,026	-	77,885	8,990	151	-	-	-	-	-
Department of the Interior, total	9,467	-	7,525	1,942	-	131,442	-	113,532	15,887	2,023
Bureau of Mines	-	-	-	-	-	2,930	-	907	-	2,023
Geological Survey	9,467	-	7,525	1,942	-	128,512	-	112,625	15,887	-
Department of the Treasury, total	473	-	473	-	-	-	-	-	-	-
Bureau of Engraving and Printing	473	-	473	-	-	-	-	-	-	-
Other agencies										
Environmental Protection Agency	6,453	-	5,596	857	-	8,956	8,736	220	-	-
National Aeronautics & Space Admin	719,127	413,713	40,383	244,652	20,379	223,245	107,360	36,697	15,217	63,971
National Archives	55	-	5	50	-	-	-	-	-	-
National Science Foundation	422,176	83,115	122,070	161,841	55,150	417,868	135,562	92,260	185,308	4,738
Smithsonian Institution	16,448	16,448	-	-	-	6,108	40	4,369	1,699	-
Tennessee Valley Authority	1,519	-	1,519	-	-	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-45. Federal obligations for basic research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	2,696,512	556,483	532,475	1,520,412	87,142	1,184240	398,720	371,415	316,576	97,529
Departments										
Department of Agriculture, total	33,879	-	32,006	1,873	-	5,281	1,988	3,293	-	-
Agricultural Research Service	24,462	-	23,385	1,077	-	1,018	915	103	-	-
Cooperative State Research Service	5,211	-	5,211	-	-	352	352	-	-	-
Forest Service	4,206	-	3,410	796	-	3,911	721	3,190	-	-
Department of Commerce, total	23,596	398	9,734	13,464	-	118	-	118	-	-
Nat'l Institute of Standards & Tech	23,596	398	9,734	13,464	-	118	-	118	-	-
Department of Defense, total	157,513	9,372	61,832	84,623	1,686	137,776	32,628	37,976	65,528	1,644
Department of the Army	30,702	-	13,648	15,712	1,342	12,564	8,009	3,041	45	1,469
Department of the Navy	70,393	4,125	25,380	40,544	344	98,357	12,729	27,397	58,056	175
Department of the Air Force	45,953	5,247	20,004	20,702	-	12,070	10,257	1,813	-	-
Defense agencies	10,465	-	2,800	7,665	-	14,785	1,633	5,725	7,427	-
Department of Energy	1,067,409	-	146,257	921,152	-	120,801	62,389	51,616	6,578	218
Dept of Hlth & Human Services, total	95,929	-	86,287	9,475	167	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	4,521	-	4,458	63	-	-	-	-	-	-
National Institutes of Health	91,408	-	81,829	9,412	167	-	-	-	-	-
Department of the Interior, total	10,181	-	8,093	2,088	-	144,759	-	125,092	16,424	3,243
Bureau of Mines	-	-	-	-	-	4,138	-	895	-	3,243
Geological Survey	10,181	-	8,093	2,088	-	140,621	-	124,197	16,424	-
Department of the Treasury, total	225	-	225	-	-	-	-	-	-	-
Bureau of Engraving and Printing	225	-	225	-	-	-	-	-	-	-
Other agencies										
Environmental Protection Agency	11,531	-	9,909	1,622	-	16,020	13,333	1,731	956	-
National Aeronautics & Space Admin	830,312	440,688	47,533	315,071	27,020	311,384	145,109	49,386	29,471	87,418
National Archives	55	-	5	50	-	-	-	-	-	-
National Science Foundation	446,053	87,816	128,974	170,994	58,269	441,502	143,229	97,478	195,789	5,006
Smithsonian Institution	18,209	18,209	-	-	-	6,599	44	4,725	1,830	-
Tennessee Valley Authority	1,620	-	1,620	-	-	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-46. Federal obligations for basic research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	2,966,327	576,633	544,785	1,699,196	145,713	1,328,223	495,646	383,315	372,652	76,610
Departments										
Department of Agriculture, total	34,648	-	32,716	1,932	-	5,202	1,990	3,212	-	-
Agricultural Research Service	26,291	-	25,133	1,158	-	1,094	984	110	-	-
Cooperative State Research Service	4,266	-	4,266	-	-	305	305	-	-	-
Forest Service	4,091	-	3,317	774	-	3,803	701	3,102	-	-
Department of Commerce, total	24,869	401	10,086	14,349	33	120	-	120	-	-
Nat'l Institute of Standards & Tech	24,869	401	10,086	14,349	33	120	-	120	-	-
Department of Defense, total	182,755	10,305	70,748	95,857	5,845	146,372	35,537	39,069	70,035	1,731
Department of the Army	35,053	-	14,231	15,495	5,327	13,044	8,529	3,250	-	1,265
Department of the Navy	82,246	4,626	28,347	48,755	518	108,861	14,200	30,817	63,378	466
Department of the Air Force	53,945	5,679	25,398	22,868	-	13,248	11,336	1,912	-	-
Defense agencies	11,511	-	2,772	8,739	-	11,219	1,472	3,090	6,657	-
Department of Energy	1,174,689	-	129,251	1,045,438	-	133,185	79,192	46,234	7,517	242
Dept of Hlth & Human Services, total	102,200	-	92,005	10,015	180	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	5,561	-	5,494	67	-	-	-	-	-	-
National Institutes of Health	96,639	-	86,511	9,948	180	-	-	-	-	-
Department of the Interior, total	11,203	-	8,905	2,298	-	141,800	300	121,878	16,262	3,360
Bureau of Land Management	-	-	-	-	-	300	300	-	-	-
Bureau of Mines	-	-	-	-	-	2,680	-	620	-	2,060
Geological Survey	11,203	-	8,905	2,298	-	138,820	-	121,258	16,262	1,300
Department of the Treasury, total	127	-	127	-	-	-	-	-	-	-
Bureau of Engraving and Printing	127	-	127	-	-	-	-	-	-	-
Other agencies										
Environmental Protection Agency	16,477	-	14,227	2,250	-	13,130	12,985	145	-	-
National Aeronautics & Space Admin	891,696	441,458	40,876	335,111	74,251	385,691	204,819	58,131	57,084	65,657
National Archives	216	-	206	10	-	-	-	-	-	-
National Science Foundation	500,681	98,571	144,770	191,936	65,404	495,573	160,770	109,416	219,767	5,620
Smithsonian Institution	25,898	25,898	-	-	-	7,150	53	5,110	1,987	-
Tennessee Valley Authority	868	-	868	-	-	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-47. Federal obligations for basic research in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	1,183,717	327,892	58,867	50,081	51,656	173,838	100,832	254,840	165,711
Departments									
Department of Agriculture, total	11,726	-	-	2,441	2,029	172	1,530	-	5,554
Agricultural Research Service	2,512	-	-	1,381	619	152	360	-	-
Cooperative State Research Service	4,249	-	-	-	-	-	-	-	4,249
Forest Service	4,965	-	-	1,060	1,410	20	1,170	-	1,305
Department of Commerce, total	4,854	-	52	653	-	1,056	-	1,032	2,061
Nat'l Institute of Standards & Tech	4,854	-	52	653	-	1,056	-	1,032	2,061
Department of Defense, total	374,077	34,738	4,893	6,716	17,096	113,237	50,074	132,060	15,263
Department of the Army	75,399	8,898	-	2,978	6,589	32,367	6,103	9,741	8,723
Department of the Navy	103,744	-	-	3,523	591	33,611	33,697	32,322	-
Department of the Air Force	88,714	20,059	3,052	-	4,899	33,997	6,416	20,291	-
Defense agencies	106,220	5,781	1,841	215	5,017	13,262	3,858	69,706	6,540
Department of Energy	111,778	-	-	1,190	-	300	15,274	58,325	36,689
Dept of Hlth & Human Services, total	49,524	-	-	-	-	-	-	-	49,524
Alcohol, Drug Abuse & Mental Hlth Admin	616	-	-	-	-	-	-	-	616
National Institutes of Health	48,908	-	-	-	-	-	-	-	48,908
Department of the Interior, total	41,013	-	-	-	-	-	-	12,036	28,977
Bureau of Mines	41,011	-	-	-	-	-	-	12,036	28,975
Bureau of Reclamation	2	-	-	-	-	-	-	-	2
Other agencies									
Environmental Protection Agency	14,102	-	-	2,301	2,242	-	-	-	9,559
National Aeronautics & Space Admin	399,675	292,861	53,922	4,015	91	6,675	7,404	27,998	6,709
National Science Foundation	176,968	293	-	32,765	30,198	52,398	26,550	23,389	11,375

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-48. Federal obligations for basic research in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	1,198,721	336,992	64,288	57,966	49,722	164,717	100,491	266,124	158,421
Departments									
Department of Agriculture, total	12,353	-	-	2,534	2,262	170	1,450	-	5,937
Agricultural Research Service	2,163	-	-	1,302	624	147	90	-	-
Cooperative State Research Service	4,421	-	-	-	-	-	-	-	4,421
Forest Service	5,769	-	-	1,232	1,638	23	1,360	-	1,516
Department of Commerce, total	5,477	-	-	920	-	1,171	-	1,052	2,334
Nat'l Institute of Standards & Tech	5,477	-	-	920	-	1,171	-	1,052	2,334
Department of Defense, total	336,556	30,147	3,924	6,815	12,341	100,026	46,842	134,363	2,098
Department of the Army	68,395	9,222	-	3,204	5,438	32,573	7,404	10,269	285
Department of the Navy	100,870	-	-	3,611	622	32,563	32,119	31,955	-
Department of the Air Force	80,254	16,454	2,998	-	2,284	26,823	6,175	25,520	-
Defense agencies	87,037	4,471	926	-	3,997	8,067	1,144	66,619	1,813
Department of Energy	119,083	-	-	1,466	-	400	15,510	60,051	41,656
Dept of Hlth & Human Services, total	52,129	-	-	-	-	-	-	-	52,129
Alcohol, Drug Abuse & Mental Hlth Admin	741	-	-	-	-	-	-	-	741
National Institutes of Health	51,388	-	-	-	-	-	-	-	51,388
Department of the Interior, total	38,784	-	-	-	-	-	-	14,024	24,760
Bureau of Mines	38,784	-	-	-	-	-	-	14,024	24,760
Other agencies									
Environmental Protection Agency	17,035	-	-	3,678	3,110	-	220	165	9,862
National Aeronautics & Space Admin	430,326	306,535	60,364	7,935	103	7,588	8,417	31,757	7,627
National Science Foundation	186,978	310	-	34,618	31,906	55,362	28,052	24,712	12,018

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-49. Federal obligations for basic research in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	1,253,339	298,505	87,174	64,093	55,407	180,331	108,965	300,116	158,748
Departments									
Department of Agriculture, total	11,230	-	-	2,597	2,264	181	1,419	-	4,769
Agricultural Research Service	2,325	-	-	1,399	671	158	97	-	-
Cooperative State Research Service	3,295	-	-	-	-	-	-	-	3,295
Forest Service	5,610	-	-	1,198	1,593	23	1,322	-	1,474
Department of Commerce, total	6,755	-	-	1,187	-	1,702	136	1,339	2,391
Nat'l Institute of Standards & Tech	6,755	-	-	1,187	-	1,702	136	1,339	2,391
Department of Defense, total	386,079	36,084	4,174	8,113	13,431	107,702	51,419	158,623	6,533
Department of the Army	68,610	9,159	-	2,997	6,395	32,873	6,903	10,013	270
Department of the Navy	116,319	-	-	5,116	485	38,302	36,648	35,768	-
Department of the Air Force	91,840	22,445	3,245	-	2,532	29,074	6,857	27,687	-
Defense agencies	109,310	4,480	929	-	4,019	7,453	1,011	85,155	6,263
Department of Energy	116,834	-	-	552	-	400	15,080	59,537	41,265
Dept of Hlth & Human Services, total	55,114	-	-	-	-	-	-	-	55,114
Alcohol, Drug Abuse & Mental Hlth Admin	786	-	-	-	-	-	-	-	786
National Institutes of Health	54,328	-	-	-	-	-	-	-	54,328
Department of the Interior, total	29,511	-	-	-	47	-	-	13,995	15,469
Bureau of Mines	29,464	-	-	-	-	-	-	13,995	15,469
Bureau of Reclamation	47	-	-	-	47	-	-	-	-
Other agencies									
Environmental Protection Agency	20,336	-	-	4,559	3,739	-	323	243	11,472
National Aeronautics & Space Admin	417,603	262,073	83,000	8,227	112	8,204	9,100	38,641	8,246
National Science Foundation	209,877	348	-	38,858	35,814	62,142	31,488	27,738	13,489

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-50. Federal obligations for basic research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	345,792	167,789	159,544	18,449	154,620	12,084	37,695	5,426	38,196	61,219
Departments										
Department of Agriculture, total	3,956	3,508	448	-	19,153	-	15,959	131	2,944	119
Agricultural Research Service	498	50	448	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	9,012	-	6,547	-	2,465	-
Economic Research Service	-	-	-	-	6,931	-	6,652	21	139	119
Forest Service	2,505	2,505	-	-	3,210	-	2,760	110	340	-
Nat'l Agricultural Statistics Svc	953	953	-	-	-	-	-	-	-	-
Department of Commerce, total	1,285	1,285	-	-	-	-	-	-	-	-
Bureau of the Census	942	942	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	343	343	-	-	-	-	-	-	-	-
Department of Defense, total	119,084	47,069	54,810	17,205	-	-	-	-	-	-
Department of the Army	9,866	4,093	5,354	419	-	-	-	-	-	-
Department of the Navy	33,549	17,070	16,479	-	-	-	-	-	-	-
Department of the Air Force	27,303	15,243	12,060	-	-	-	-	-	-	-
Defense agencies	48,366	10,663	20,917	16,786	-	-	-	-	-	-
Department of Education	-	-	-	-	2,960	-	-	-	-	2,960
Department of Energy	42,127	29,877	12,250	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	9,383	9,345	538	-	59,518	437	10,082	1,056	31,550	16,393
Alcohol, Drug Abuse & Mental Hlth Admin	723	248	475	-	21,073	437	1,514	1,056	14,618	3,448
National Institutes of Health	9,160	9,097	63	-	12,945	-	-	-	-	12,945
Office of Ass't Secy for Health	-	-	-	-	25,500	-	8,568	-	16,932	-
Department of the Interior, total	2,185	485	1,700	-	-	-	-	-	-	-
Geological Survey	2,185	485	1,700	-	-	-	-	-	-	-
Department of Justice, total	100	100	-	-	5,081	50	100	200	500	4,231
Office of Justice Programs	100	100	-	-	5,081	50	100	200	500	4,231
Department of Labor, total	-	-	-	-	318	-	318	-	-	-
Employment and Training Admin	-	-	-	-	318	-	318	-	-	-
Department of State, total	-	-	-	-	3,437	172	859	687	344	1,375
Departmental Funds	-	-	-	-	3,437	172	859	687	344	1,375
Department of the Treasury, total	1,841	1,565	276	-	1,044	-	679	-	-	365
Internal Revenue Service	1,841	1,565	276	-	1,044	-	679	-	-	365
Other agencies										
Agency for Internat'l Development	-	-	-	-	271	-	228	33	-	10
National Aeronautics & Space Admin	24,351	886	22,221	1,244	215	-	27	25	-	163
National Science Foundation	140,970	73,669	67,301	-	35,249	8,404	9,443	3,294	2,858	11,250
Smithsonian Institution	-	-	-	-	27,374	3,021	-	-	-	24,353

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-51. Federal obligations for basic research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	355,966	170,632	161,421	23,913	188,153	12,716	46,128	6,453	54,111	68,745
Departments										
Department of Agriculture, total	4,528	3,988	540	-	20,174	-	16,877	149	3,025	123
Agricultural Research Service	600	60	540	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	9,299	-	6,812	-	2,487	-
Economic Research Service	-	-	-	-	7,145	-	6,858	21	143	123
Forest Service	2,911	2,911	-	-	3,730	-	3,207	128	395	-
Nat'l Agricultural Statistics Svc	1,017	1,017	-	-	-	-	-	-	-	-
Department of Commerce, total	714	714	-	-	-	-	-	-	-	-
Bureau of the Census	445	445	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	269	269	-	-	-	-	-	-	-	-
Department of Defense, total	116,267	43,101	50,867	22,299	-	-	-	-	-	-
Department of the Army	12,170	4,034	7,727	409	-	-	-	-	-	-
Department of the Navy	33,129	16,210	16,919	-	-	-	-	-	-	-
Department of the Air Force	20,613	13,349	5,729	1,535	-	-	-	-	-	-
Defense agencies	50,355	9,508	20,492	20,355	-	-	-	-	-	-
Department of Education	-	-	-	-	3,516	-	-	-	-	3,516
Department of Energy	43,706	31,688	12,018	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	10,511	9,854	657	-	83,727	516	16,914	1,292	47,334	17,671
Alcohol, Drug Abuse & Mental Hlth Admin	889	317	572	-	25,146	516	1,794	1,292	17,454	4,090
National Institutes of Health	9,622	9,537	85	-	13,581	-	-	-	-	13,581
Office of Ass't Secy for Health	-	-	-	-	45,000	-	15,120	-	29,880	-
Department of the Interior, total	2,349	522	1,827	-	-	-	-	-	-	-
Geological Survey	2,349	522	1,827	-	-	-	-	-	-	-
Department of Justice, total	100	100	-	-	5,913	50	50	840	400	4,573
Office of Justice Programs	100	100	-	-	5,913	50	50	840	400	4,573
Department of Labor, total	-	-	-	-	290	-	290	-	-	-
Employment and Training Admin	-	-	-	-	290	-	290	-	-	-
Department of State, total	-	-	-	-	3,321	166	830	664	332	1,329
Departmental Funds	-	-	-	-	3,321	166	830	664	332	1,329
Department of the Treasury, total	2,144	1,822	322	-	1,216	-	790	-	-	426
Internal Revenue Service	2,144	1,822	322	-	1,216	-	790	-	-	426
Other agencies										
Agency for Internat'l Development	-	-	-	-	140	-	140	-	-	-
Environmental Protection Agency	165	-	165	-	229	-	229	-	-	-
National Aeronautics & Space Admin	26,539	1,007	23,918	1,614	274	-	31	28	-	215
National Science Foundation	148,943	77,836	71,107	-	37,242	8,879	9,977	3,480	3,020	11,886
Smithsonian Institution	-	-	-	-	32,111	3,105	-	-	-	29,006

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-52. Federal obligations for basic research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	378,732	185,734	172,796	20,202	189,036	14,158	44,424	6,353	81,333	42,768
Departments										
Department of Agriculture, total	4,540	3,959	581	-	18,865	-	15,780	148	2,802	135
Agricultural Research Service	646	65	581	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	7,361	-	5,101	-	2,260	-
Economic Research Service	-	-	-	-	7,877	-	7,560	24	158	135
Forest Service	2,831	2,831	-	-	3,627	-	3,119	124	384	-
Nat'l Agricultural Statistics Svc	1,063	1,063	-	-	-	-	-	-	-	-
Department of Commerce, total	865	719	146	-	-	-	-	-	-	-
Bureau of the Census	445	445	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	420	274	146	-	-	-	-	-	-	-
Department of Defense, total	107,827	45,977	43,177	18,673	-	-	-	-	-	-
Department of the Army	13,372	4,224	8,743	405	-	-	-	-	-	-
Department of the Navy	37,642	18,791	18,851	-	-	-	-	-	-	-
Department of the Air Force	22,343	14,482	6,200	1,661	-	-	-	-	-	-
Defense agencies	34,470	8,480	9,383	16,607	-	-	-	-	-	-
Department of Education	-	-	-	-	5,375	-	-	-	-	5,375
Department of Energy	47,975	33,683	14,292	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	11,136	10,442	694	-	81,030	569	15,115	1,404	45,079	18,863
Alcohol, Drug Abuse & Mental Hlth Admin	964	360	604	-	27,571	569	1,977	1,404	19,117	4,504
National Institutes of Health	10,172	10,082	90	-	14,359	-	-	-	-	14,359
Office of Ass't Secy for Health	-	-	-	-	39,100	-	13,138	-	25,962	-
Department of the Interior, total	2,585	575	2,010	-	-	-	-	-	-	-
Geological Survey	2,585	575	2,010	-	-	-	-	-	-	-
Department of Justice, total	100	100	-	-	5,083	50	50	200	1,700	3,083
Office of Justice Programs	100	100	-	-	5,083	50	50	200	1,700	3,083
Department of Labor, total	-	-	-	-	291	-	291	-	-	-
Employment and Training Admin	-	-	-	-	291	-	291	-	-	-
Department of State, total	-	-	-	-	3,319	166	830	664	331	1,328
Departmental Funds	-	-	-	-	3,319	166	830	664	331	1,328
Department of the Treasury, total	2,144	1,822	322	-	1,216	-	790	-	-	426
Internal Revenue Service	2,144	1,822	322	-	1,216	-	790	-	-	426
Other agencies										
Environmental Protection Agency	4,010	-	4,010	-	336	-	336	-	-	-
National Aeronautics & Space Admin	30,366	1,089	27,748	1,529	280	-	33	31	-	216
National Science Foundation	167,184	87,368	79,816	-	41,803	9,966	11,199	3,906	3,390	13,342
Smithsonian Institution	-	-	-	-	31,438	3,407	-	-	28,031	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-53. Federal obligations for applied research, by agency and performer: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	10,163,337	5,610,818	2,101,814	353,187	2,571,792	605,367	680,781	67,321	77,615	94,642
Departments										
Department of Agriculture, total	517,254	331,285	5,472	-	172,027	10	6,049	-	1,110	1,341
Agricultural Cooperative Service	2,821	2,598	-	-	223	-	-	-	-	-
Agricultural Marketing Service 2/	1,254	1,147	-	-	37	-	70	-	-	-
Agricultural Research Service	209,404	196,172	-	-	10,490	-	1,393	-	49	1,300
Animal & Plant Health Inspection Svc	7,354	6,788	-	-	517	-	49	-	-	-
Cooperative State Research Service	164,685	7,024	3,667	-	149,877	-	3,339	-	778	-
Economic Research Service	42,577	41,124	-	-	1,453	-	-	-	-	-
Federal Grain Inspection Service	771	453	-	-	229	10	79	-	-	-
Forest Service	77,500	68,274	412	-	7,411	-	1,079	-	283	41
Human Nutrition Information Service	6,395	5,658	1,393	-	1,344	-	-	-	-	-
Nat'l Agricultural Statistics Svc	1,944	1,668	-	-	276	-	-	-	-	-
Off of Internat'l Cooperation & Development	589	379	-	-	170	-	40	-	-	-
Department of Commerce, total	321,879	273,342	5,492	-	35,292	-	1,863	-	5,780	110
Bureau of the Census	1,819	1,819	-	-	-	-	-	-	-	-
Economic Development Administration	1,007	115	-	-	725	-	167	-	-	-
Nat'l Institute of Standards & Tech	77,621	72,949	541	-	4,028	-	18	-	-	85
Nat'l Oceanic & Atmospheric Admin	234,569	191,596	4,951	-	30,539	-	1,678	-	5,780	25
Nat'l Telecomm & Information Admin	6,863	6,863	-	-	-	-	-	-	-	-
Department of Defense, total	2,708,197	1,067,431	1,085,654	64,258	328,156	83,460	49,108	15,456	2,866	11,808
Department of the Army	636,275	423,605	152,238	5,611	26,143	12,606	8,772	-	-	7,300
Department of the Navy	429,181	249,886	90,310	46,784	29,406	3,235	5,964	280	2,866	450
Department of the Air Force	604,597	180,113	351,581	-	54,677	-	16,462	-	-	1,764
Defense agencies	1,038,144	213,827	491,525	11,863	217,930	67,619	17,910	15,176	-	2,294
Department of Education	117,523	12,356	5,856	-	78,061	-	18,419	-	2,731	100
Department of Energy	1,020,779	92,368	122,995	239,694	135,611	369,523	22,569	36,310	995	714
Dept of Hlth & Human Services, total	2,700,427	579,561	132,338	5,378	1,500,697	7,994	413,885	4,849	38,330	17,395
Alcohol, Drug Abuse & Mental Hlth Admin	384,660	76,391	13,176	-	240,951	-	33,966	-	16,898	3,278
Centers for Disease Control	117,785	72,236	4,357	-	22,129	-	18,766	-	297	-
Food & Drug Administration	99,000	91,789	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	49,076	975	14,589	-	11,277	-	20,972	-	858	405
Health Resources and Services Administration	9,303	1,564	-	-	5,039	-	1,055	-	1,645	-
Human Development Services	8,496	579	200	-	2,408	-	4,208	-	1,085	16
National Institutes of Health	2,008,466	331,452	97,505	5,378	1,206,661	7,994	324,541	4,849	16,580	13,506
Office of the Secretary	7,795	1,294	2,016	-	3,458	-	1,027	-	-	-
Social Security Administration	15,846	3,281	495	-	3,652	-	7,261	-	967	190
Dept of Housing & Urban Development	6,102	5,148	640	-	21	-	293	-	-	-
Department of the Interior, total	253,031	221,365	9,737	125	20,474	-	90	-	790	450
Bureau of Land Management	2,000	1,800	-	-	200	-	-	-	-	-
Bureau of Mines	49,282	39,770	7,334	-	2,042	-	-	-	136	-
Bureau of Reclamation	3,533	3,058	-	-	475	-	-	-	-	-
Geological Survey	126,782	114,767	2,313	-	9,048	-	-	-	654	-
Mineral Management Service	2,212	1,297	90	125	197	-	53	-	-	450
National Park Service	19,422	14,280	-	-	5,111	-	31	-	-	-
Off of Surface Mining Reclamation & Enforcement	700	1	-	-	693	-	6	-	-	-
US Fish & Wildlife Service	49,100	46,392	-	-	2,708	-	-	-	-	-
Department of Justice, total	10,724	1,948	1,416	-	2,833	-	2,764	-	1,763	-
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	2,149	1,678	171	-	-	-	300	-	-	-
Immigration & Naturalization Svc	85	40	45	-	-	-	-	-	-	-
Office of Justice Programs	7,990	30	900	-	2,833	-	2,464	-	1,763	-
Department of Labor, total	21,841	4,856	7,651	-	6,378	-	2,956	-	-	-
Bureau of Labor Statistics	7,000	1,200	-	-	5,800	-	-	-	-	-
Employment Standards Administration	118	118	-	-	-	-	-	-	-	-
Employment and Training Admin	14,732	700	2,556	-	130	-	2,346	-	-	-
Labor-Management Relations & Coop Prog	303	10	-	-	293	-	-	-	-	-

Continued on next page

Table C-53. Federal obligations for applied research, by agency and performer: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,503	315	4,188	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	1,413	374	499	-	-	-	540	-	-	-
Office of the Secretary	2,472	1,839	408	-	155	-	70	-	-	-
Pension Benefit Guarantee Corporation	300	300	-	-	-	-	-	-	-	-
Department of State, total	1,277	264	59	-	900	-	49	-	-	5
Departmental funds	1,277	264	59	-	900	-	49	-	-	5
Department of Transportation, total ..	120,272	43,738	46,480	49	10,205	100	5,742	-	12,562	1,396
Coast Guard	4,600	2,722	1,262	-	616	-	-	-	-	-
Federal Aviation Administration	23,579	21,780	1,799	-	-	-	-	-	-	-
Federal Highway Administration	56,387	2,174	35,639	49	7,660	-	314	-	9,715	836
Federal Railroad Administration	7,480	3,819	428	-	50	-	3,183	-	-	-
Nat'l Highway Traffic Safety Admin .	26,242	12,123	6,488	-	1,879	100	2,245	-	2,847	560
Office of the Secretary	1,284	420	864	-	-	-	-	-	-	-
Research & Special Programs Admin ..	700	700	-	-	-	-	-	-	-	-
Department of the Treasury, total	12,952	8,999	3,778	-	-	175	-	-	-	-
Bureau of Engraving and Printing ...	906	731	-	-	-	175	-	-	-	-
Internal Revenue Service	11,250	8,082	3,168	-	-	-	-	-	-	-
Office of Protective Research	376	126	250	-	-	-	-	-	-	-
United States Customs Service	420	60	360	-	-	-	-	-	-	-
Department of Veterans Affairs	197,100	195,735	-	-	800	-	565	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1,130	1,130	-	-	-	-	-	-	-	-
Agency for Internat'l Development	216,012	6,214	8,986	-	58,087	-	86,801	-	-	55,924
Appalachian Regional Commission	767	767	-	-	-	-	-	-	-	-
Consumer Product Safety Commission ...	486	281	205	-	-	-	-	-	-	-
Environmental Protection Agency	222,635	84,396	60,345	-	48,317	-	20,551	-	9,026	-
Federal Communications Commission	1,101	1,101	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/.....	4,051	3,856	160	-	35	-	-	-	-	-
Federal Trade Commission	379	379	-	-	-	-	-	-	-	-
General Services Administration	540	540	-	-	-	-	-	-	-	-
International Trade Commission	8,671	8,671	-	-	-	-	-	-	-	-
Library of Congress	1,200	1,200	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin ...	1,461,400	621,095	584,723	-	88,416	121,724	40,483	171	1,577	3,211
National Archives	100	100	-	-	-	-	-	-	-	-
National Science Foundation	107,767	8,818	11,573	35	80,480	259	6,517	-	85	-
Nuclear Regulatory Commission	114,815	22,915	7,432	43,623	4,300	22,047	1,850	10,460	-	2,188
Tennessee Valley Authority	11,662	10,757	-	-	678	-	227	-	-	-
US Arms Control & Disarmament Agency .	1,223	202	822	25	24	75	-	75	-	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-54. Federal obligations for applied research, by agency and performer: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	10,335,183	3,764,730	2,203,110	342,755	2,496,134	586,763	722,248	66,287	78,528	74,628
Departments										
Department of Agriculture, total	552,231	355,632	5,908	-	182,136	-	6,309	-	1,075	1,171
Agricultural Cooperative Service	2,779	2,779	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1,315	1,315	-	-	-	-	-	-	-	-
Agricultural Research Service	218,769	205,177	-	-	10,959	-	1,455	-	51	1,127
Animal & Plant Health Inspection Svc	7,809	7,325	-	-	429	-	55	-	-	-
Cooperative State Research Service	175,022	6,988	3,831	-	159,647	-	3,779	-	777	-
Economic Research Service	43,888	43,412	-	-	476	-	-	-	-	-
Federal Grain Inspection Service	799	426	-	-	325	-	48	-	-	-
Forest Service	90,200	80,223	377	-	8,337	-	972	-	247	44
Human Nutrition Information Service	9,031	5,800	1,700	-	1,531	-	-	-	-	-
Nat'l Agricultural Statistics Svc	2,075	1,852	-	-	223	-	-	-	-	-
Off of Internat'l Cooperation & Development	544	335	-	-	209	-	-	-	-	-
Department of Commerce, total	337,501	281,544	8,192	-	39,690	-	2,187	-	5,775	113
Bureau of the Census	2,364	2,364	-	-	-	-	-	-	-	-
Economic Development Administration	1,200	415	-	-	580	-	205	-	-	-
Nat'l Institute of Standards & Tech	86,728	76,215	3,378	-	6,743	-	304	-	-	88
Nat'l Oceanic & Atmospheric Admin	240,188	195,529	4,814	-	32,367	-	1,678	-	5,775	25
Nat'l Telecomm & Information Admin	7,021	7,021	-	-	-	-	-	-	-	-
Department of Defense, total	2,342,705	950,857	1,004,558	37,742	228,304	62,145	35,603	11,641	1,873	9,982
Department of the Army	542,565	382,226	102,030	12,933	23,942	7,475	7,471	953	-	5,535
Department of the Navy	424,703	272,539	100,634	15,290	28,244	2,915	2,318	855	1,873	35
Department of the Air Force	529,201	146,264	314,627	-	52,613	-	14,000	-	-	1,697
Defense agencies	846,236	149,828	487,267	9,519	123,505	51,755	11,814	9,833	-	2,715
Department of Education	128,155	14,199	6,821	-	84,014	-	20,089	-	3,032	-
Department of Energy	1,109,188	140,751	163,615	260,486	111,830	359,499	32,326	38,268	1,355	1,058
Dept of Hlth & Human Services, total	2,915,356	667,039	152,969	6,124	1,533,772	9,140	476,635	5,484	43,962	20,231
Alcohol, Drug Abuse & Mental Hlth Admin	458,663	95,177	16,163	-	283,538	-	38,775	-	20,650	4,360
Centers for Disease Control	125,936	77,647	5,000	-	23,235	-	19,704	-	350	-
Food & Drug Administration	110,000	102,789	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	50,000	1,000	13,664	-	7,954	-	26,334	-	548	500
Health Resources and Services Administration	9,345	1,617	-	-	5,038	-	1,140	-	1,550	-
Human Development Services	11,364	620	600	-	3,505	-	4,805	-	1,818	16
National Institutes of Health	2,116,800	377,848	111,142	6,124	1,202,800	9,140	369,987	5,484	18,920	15,355
Office of Asst't Secy for Health	10,200	5,400	4,800	-	-	-	-	-	-	-
Office of the Secretary	5,001	1,400	1,550	-	1,000	-	1,051	-	-	-
Social Security Administration	18,047	3,541	50	-	1,580	-	12,750	-	126	-
Dept of Housing & Urban Development	7,507	4,650	2,250	-	16	-	591	-	-	-
Department of the Interior, total	270,224	238,667	9,664	551	19,790	-	50	-	956	546
Bureau of Land Management	2,100	2,000	-	-	100	-	-	-	-	-
Bureau of Mines	52,029	43,033	7,583	-	1,413	-	-	-	-	-
Bureau of Reclamation	4,163	3,663	-	-	500	-	-	-	-	-
Geological Survey	132,021	119,979	1,791	461	8,834	-	-	-	956	-
Mineral Management Service	2,045	965	290	90	154	-	-	-	-	546
National Park Service	19,500	14,250	-	-	5,200	-	50	-	-	-
Off of Surface Mining Reclamation & Enforcement	766	1	-	-	765	-	-	-	-	-
US Fish & Wildlife Service	57,600	54,776	-	-	2,824	-	-	-	-	-
Department of Justice, total	12,114	2,020	831	-	2,830	-	5,633	-	800	-
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	1,800	1,557	143	-	-	-	100	-	-	-
Immigration & Naturalization Svc	400	40	360	-	-	-	-	-	-	-
Office of Justice Programs	9,414	223	28	-	2,830	-	5,533	-	800	-
Department of Labor, total	21,986	4,396	7,690	-	7,230	-	2,670	-	-	-
Bureau of Labor Statistics	7,100	500	-	-	6,600	-	-	-	-	-
Employment Standards Administration	265	265	-	-	-	-	-	-	-	-
Employment and Training Admin	5,518	800	2,718	-	500	-	1,500	-	-	-
Labor-Management Relations & Coop Prog	70	10	-	-	60	-	-	-	-	-

Continued on next page

Table C-54. Federal obligations for applied research, by agency and performer: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,125	400	3,725	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2,429	436	993	-	-	-	1,000	-	-	-
Office of the Secretary	2,179	1,685	254	-	70	-	170	-	-	-
Pension Benefit Guarantee Corporation	300	300	-	-	-	-	-	-	-	-
Department of State, total	1,190	196	59	-	900	-	30	-	-	5
Departmental funds	1,190	196	59	-	900	-	30	-	-	5
Department of Transportation, total ..	121,219	45,529	45,522	-	12,784	100	4,280	-	11,357	1,647
Coast Guard	5,589	3,340	1,749	-	500	-	-	-	-	-
Federal Aviation Administration	28,665	22,300	6,365	-	-	-	-	-	-	-
Federal Highway Administration	50,695	1,283	29,719	-	10,289	-	-	-	8,757	647
Federal Railroad Administration	10,037	6,747	390	-	170	-	2,730	-	-	-
Nat'l Highway Traffic Safety Admin .	23,857	10,952	5,830	-	1,825	100	1,550	-	2,600	1,000
Office of the Secretary	1,776	307	1,469	-	-	-	-	-	-	-
Research & Special Programs Admin ..	600	600	-	-	-	-	-	-	-	-
Department of the Treasury, total	15,413	9,994	5,201	-	-	218	-	-	-	-
Bureau of Engraving and Printing	1,424	1,206	-	-	-	218	-	-	-	-
Internal Revenue Service	13,104	8,478	4,626	-	-	-	-	-	-	-
Office of Protective Research	485	210	275	-	-	-	-	-	-	-
United States Customs Service	400	100	300	-	-	-	-	-	-	-
Department of Veterans Affairs	201,000	200,200	-	-	800	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov'tl Relations	1,360	1,360	-	-	-	-	-	-	-	-
Agency for Internat'l Development	161,672	5,276	10,056	-	49,129	-	62,915	-	-	34,296
Appalachian Regional Commission	1,000	1,000	-	-	-	-	-	-	-	-
Consumer Product Safety Commission	230	221	9	-	-	-	-	-	-	-
Environmental Protection Agency	240,431	90,950	94,265	-	32,866	-	15,550	-	6,800	-
Federal Communications Commission	1,988	1,988	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/	5,786	5,786	-	-	-	-	-	-	-	-
Federal Trade Commission	459	459	-	-	-	-	-	-	-	-
General Services Administration	805	715	90	-	-	-	-	-	-	-
International Trade Commission	9,595	9,595	-	-	-	-	-	-	-	-
Library of Congress	1,153	1,153	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	1,636,000	687,120	660,787	-	100,513	139,090	43,759	178	1,457	3,096
National Archives	100	100	-	-	-	-	-	-	-	-
National Science Foundation	114,830	9,452	12,538	35	85,271	224	7,225	-	85	-
Nuclear Regulatory Commission	109,290	24,955	11,433	37,757	4,009	16,322	1,615	10,716	-	2,483
Tennessee Valley Authority	13,811	8,813	-	-	226	-	4,771	-	1	-
US Arms Control & Disarmament Agency .	584	110	355	60	24	25	10	-	-	-
United States Information Agency	300	3	297	-	-	-	-	-	-	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-55. Federal obligations for applied research, by agency and performer: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	10,965,183	4,084,292	2,384,413	311,195	2,635,270	596,308	719,760	69,695	73,941	90,309
Departments										
Department of Agriculture, total	570,084	373,272	6,388	-	185,707	-	2,694	-	823	1,200
Agricultural Cooperative Service	2,811	2,811	-	-	-	-	-	-	-	-
Agricultural Marketing Service 2/	1,364	1,364	-	-	-	-	-	-	-	-
Agricultural Research Service	235,124	220,600	-	-	11,778	-	1,564	-	55	1,127
Animal & Plant Health Inspection Svc	8,250	7,846	-	-	346	-	58	-	-	-
Cooperative State Research Service	172,495	7,052	3,972	-	160,975	-	-	-	496	-
Economic Research Service	48,385	47,909	-	-	476	-	-	-	-	-
Federal Grain Inspection Service	738	519	-	-	194	-	-	-	-	25
Forest Service	87,700	76,692	416	-	9,200	-	1,072	-	272	48
Human Nutrition Information Service	10,705	6,400	2,000	-	2,305	-	-	-	-	-
Nat'l Agricultural Statistics Svc	2,167	1,944	-	-	223	-	-	-	-	-
Off of Internat'l Cooperation & Development	345	135	-	-	210	-	-	-	-	-
Department of Commerce, total	329,428	286,804	8,382	-	32,405	-	1,721	-	-	116
Bureau of the Census	2,364	2,364	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	90,945	84,180	4,337	-	2,016	-	321	-	-	91
Nat'l Oceanic & Atmospheric Admin	228,759	192,900	4,045	-	30,389	-	1,400	-	-	25
Nat'l Telecomm & Information Admin	7,360	7,360	-	-	-	-	-	-	-	-
Department of Defense, total	2,497,322	1,027,464	1,079,305	23,944	260,132	49,040	37,970	8,917	1,413	9,137
Department of the Army	604,268	402,806	153,365	3,819	25,417	6,010	7,199	1,187	-	4,465
Department of the Navy	464,225	300,794	110,766	15,755	30,442	2,610	2,060	350	1,413	35
Department of the Air Force	580,166	161,271	346,961	-	53,950	-	16,243	-	-	1,741
Defense agencies	848,663	162,593	468,213	4,370	150,323	40,420	12,468	7,380	-	2,896
Department of Education	147,597	18,433	6,466	-	98,286	-	20,970	500	2,942	-
Department of Energy	1,064,091	174,590	117,910	238,575	109,012	362,770	17,821	41,879	980	554
Dept of Hlth & Human Services, total	3,036,646	712,609	152,794	6,159	1,621,185	9,192	462,639	5,515	45,443	21,110
Alcohol, Drug Abuse & Mental Hlth Admin	516,344	112,084	19,391	-	314,281	-	43,587	-	21,867	5,134
Centers for Disease Control	130,790	87,519	4,000	-	21,397	-	17,574	-	300	-
Food & Drug Administration	125,500	118,289	-	-	5,122	-	2,089	-	-	-
Health Care Financing Admin	36,000	900	15,480	-	8,640	-	9,720	-	900	360
Health Resources and Services Administration	9,364	1,636	-	-	5,038	-	1,140	-	1,550	-
Human Development Services	11,854	831	600	-	4,253	-	4,419	-	1,727	24
National Institutes of Health	2,178,800	379,993	111,773	6,159	1,259,612	9,192	372,087	5,515	19,027	15,442
Office of Asst't Secy for Health	6,400	6,400	-	-	-	-	-	-	-	-
Office of the Secretary	5,017	1,416	1,550	-	1,000	-	1,051	-	-	-
Social Security Administration	16,577	3,541	-	-	1,842	-	10,972	-	72	150
Dept of Housing & Urban Development	17,713	5,300	6,811	-	-	-	5,602	-	-	-
Department of the Interior, total	261,116	238,465	2,844	150	17,862	-	200	-	810	785
Bureau of Land Management	3,000	2,500	-	-	500	-	-	-	-	-
Bureau of Mines	38,631	37,088	250	-	1,293	-	-	-	-	-
Bureau of Reclamation	6,054	5,054	250	-	750	-	-	-	-	-
Geological Survey	134,825	127,407	1,944	-	4,664	-	-	-	810	-
Mineral Management Service	2,526	771	400	150	420	-	-	-	-	785
National Park Service	22,750	15,750	-	-	6,800	-	200	-	-	-
Off of Surface Mining Reclamation & Enforcement	830	1	-	-	829	-	-	-	-	-
US Fish & Wildlife Service	52,500	49,894	-	-	2,606	-	-	-	-	-
Department of Justice, total	12,254	2,147	1,603	-	3,350	-	4,654	-	500	-
Drug Enforcement Administration	500	200	300	-	-	-	-	-	-	-
Federal Prison System	1,800	1,557	143	-	-	-	100	-	-	-
Immigration & Naturalization Svc	400	40	360	-	-	-	-	-	-	-
Office of Justice Programs	9,554	350	800	-	3,350	-	4,554	-	500	-
Department of Labor, total	26,344	4,268	10,356	-	8,085	-	3,635	-	-	-
Bureau of Labor Statistics	7,200	600	-	-	6,600	-	-	-	-	-
Employment Standards Administration	221	221	-	-	-	-	-	-	-	-
Employment and Training Admin	6,402	500	3,222	-	680	-	2,000	-	-	-
Labor-Management Relations & Coop Prog	70	10	-	-	60	-	-	-	-	-

Continued on next page

Table C-55. Federal obligations for applied research, by agency and performer: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Occupational Safety & Health Admin .	4,125	400	3,725	-	-	-	-	-	-	-
Office of Pension & Welfare Benefits	2,580	450	1,065	-	-	-	1,065	-	-	-
Office of the Secretary	5,431	1,772	2,344	-	745	-	570	-	-	-
Pension Benefit Guarantee Corporation	315	315	-	-	-	-	-	-	-	-
Department of State, total	1,206	212	59	-	900	-	30	-	-	5
Departmental funds	1,206	212	59	-	900	-	30	-	-	5
Department of Transportation, total ..	129,236	52,480	46,373	-	11,493	100	5,175	-	11,986	1,629
Coast Guard	6,070	3,610	1,960	-	500	-	-	-	-	-
Federal Aviation Administration	31,600	23,257	8,343	-	-	-	-	-	-	-
Federal Highway Administration	51,544	4,461	28,400	-	9,143	-	-	-	8,911	629
Federal Railroad Administration	12,384	7,100	1,434	-	50	-	3,500	-	300	-
Nat'l Highway Traffic Safety Admin .	25,449	12,799	5,300	-	1,800	100	1,675	-	2,775	1,000
Office of the Secretary	1,589	653	936	-	-	-	-	-	-	-
Research & Special Programs Admin ..	600	600	-	-	-	-	-	-	-	-
Department of the Treasury, total	15,310	9,691	5,401	-	-	218	-	-	-	-
Bureau of Engraving and Printing ...	1,071	853	-	-	-	218	-	-	-	-
Internal Revenue Service	13,104	8,478	4,626	-	-	-	-	-	-	-
Office of Protective Research	485	210	275	-	-	-	-	-	-	-
United States Customs Service	650	150	500	-	-	-	-	-	-	-
Department of Veterans Affairs	175,100	174,300	-	-	800	-	-	-	-	-
Other agencies										
Advisory Comm on Intergov't Relations	1,385	1,385	-	-	-	-	-	-	-	-
Agency for Internat'l Development	164,273	7,691	-	-	37,798	-	68,011	-	-	50,773
Appalachian Regional Commission	1,000	1,000	-	-	-	-	-	-	-	-
Consumer Product Safety Commission ...	395	395	-	-	-	-	-	-	-	-
Environmental Protection Agency	265,062	97,688	102,602	-	38,375	-	18,842	-	7,555	-
Federal Communications Commission	1,309	1,309	-	-	-	-	-	-	-	-
Office of Thrift Supervision 3/.....	6,360	6,360	-	-	-	-	-	-	-	-
Federal Trade Commission	477	477	-	-	-	-	-	-	-	-
General Services Administration	130	130	-	-	-	-	-	-	-	-
International Trade Commission	10,500	10,500	-	-	-	-	-	-	-	-
Library of Congress	2,171	2,171	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin ...	1,969,825	831,266	811,384	-	108,668	157,395	56,227	214	1,404	3,267
National Archives	335	85	-	-	-	250	-	-	-	-
National Science Foundation	130,143	10,886	14,033	35	95,732	249	9,123	-	85	-
Nuclear Regulatory Commission	116,183	25,418	9,981	42,132	5,245	16,994	2,060	12,620	-	1,733
Tennessee Valley Authority	9,788	7,192	-	-	210	-	2,386	-	-	-
US Arms Control & Disarmament Agency .	2,000	300	1,325	200	25	100	-	50	-	-
United States Information Agency	400	4	396	-	-	-	-	-	-	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

3/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-56. Federal obligations for applied research, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of science/engineering	1989	Estimates	
		1990	1991
Total, all fields	10,163,337	10,335,183	10,965,183
Life sciences, total	3,579,390	3,710,393	3,817,629
Biological (excluding environmental)	1,336,003	1,443,852	1,479,795
Environmental biology	210,460	187,218	192,277
Agricultural	370,689	351,941	386,923
Medical	1,514,131	1,571,523	1,600,451
Life sciences, n.e.c.	148,107	155,859	158,183
Psychology, total	234,530	245,657	288,383
Biological aspects	60,754	69,847	73,219
Social aspects	111,832	117,363	126,349
Psychological sciences, n.e.c.	61,944	58,447	88,815
Physical sciences, total	1,198,757	1,198,442	1,225,152
Astronomy	17,296	24,798	23,471
Chemistry	278,005	306,526	287,651
Physics	795,465	766,683	780,087
Physical sciences, n.e.c.	107,991	100,435	133,943
Environmental sciences, total	756,339	919,674	1,016,561
Atmospheric	271,640	338,564	415,924
Geological	207,847	220,287	212,974
Oceanography	198,374	208,741	210,053
Environmental sciences, n.e.c.	78,478	152,082	177,610
Mathematics & computer sciences, total	389,659	364,957	413,492
Mathematics	68,266	65,322	68,780
Computer sciences	205,077	177,658	213,637
Mathematics & computer sciences, n.e.c.	116,316	121,977	131,075
Engineering, total	3,258,264	3,162,432	3,430,601
Aeronautical	658,913	727,417	776,641
Astronautical	618,529	548,415	716,136
Chemical	92,157	94,660	98,102
Civil	177,940	185,363	194,676
Electrical	669,259	534,770	535,607
Mechanical	156,525	162,559	179,039
Metallurgy & materials	266,161	253,663	298,991
Engineering, n.e.c.	618,780	655,585	631,409
Social sciences, total	396,421	432,697	456,918
Anthropology	1,780	1,774	2,147
Economics	129,093	134,056	142,596
Political science	8,063	6,360	6,242
Sociology	55,883	68,435	72,578
Social sciences, n.e.c.	201,602	222,072	233,355
Other sciences, n.e.c.	349,977	300,931	316,447

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-57. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	10,163,337	3,579,390	234,530	1,198,757	756,339	389,659	3,258,264	396,421	349,977
Departments									
Department of Agriculture, total	517,294	374,752	147	31,088	6,774	6,558	22,791	75,184	-
Agricultural Cooperative Service	2,821	-	-	-	-	-	-	2,821	-
Agricultural Marketing Service 1/	1,254	1,254	-	-	-	-	-	-	-
Agricultural Research Service	209,404	184,526	-	18,336	854	731	4,957	-	-
Animal & Plant Health Inspection Svc	7,354	7,354	-	-	-	-	-	-	-
Cooperative State Research Service	164,685	121,891	-	7,141	704	-	10,139	24,810	-
Economic Research Service	42,577	-	-	-	-	-	-	42,577	-
Federal Grain Inspection Service	771	771	-	-	-	-	-	-	-
Forest Service	77,500	49,972	147	5,611	5,216	3,883	7,695	4,976	-
Human Nutrition Information Service	8,395	8,395	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	1,944	-	-	-	-	1,944	-	-	-
Off of Internat'l Cooperation & Development	589	589	-	-	-	-	-	-	-
Department of Commerce, total	321,879	14,401	185	39,498	200,434	12,734	47,888	2,844	3,895
Bureau of the Census	1,819	-	159	-	-	1,148	-	468	44
Economic Development Administration	1,007	-	-	-	-	-	-	1,007	-
Nat'l Institute of Standards & Tech	77,621	-	-	26,644	369	9,641	40,805	162	-
Nat'l Oceanic & Atmospheric Admin	234,569	14,401	26	12,854	200,065	1,808	4,090	1,207	118
Nat'l Telecomm & Information Admin	6,863	-	-	-	-	137	2,993	-	3,733
Department of Defense, total	2,708,197	235,684	80,250	348,460	148,721	273,697	1,462,108	2,669	156,608
Department of the Army	636,275	127,323	44,902	80,810	17,703	8,225	325,233	2,331	29,748
Department of the Navy	429,181	11,122	11,696	47,199	13,977	52,044	286,157	-	6,986
Department of the Air Force	604,597	47,034	23,517	64,672	48,171	29,396	391,807	-	-
Defense agencies	1,038,144	50,205	135	155,779	68,870	184,032	458,911	338	119,874
Department of Education	117,523	14,398	8,289	-	-	490	7,323	87,023	-
Department of Energy	1,020,779	57,291	-	589,366	64,185	4,736	294,351	-	10,850
Dept of Hlth & Human Services, total	2,700,427	2,240,379	125,020	29,980	-	6,180	20,562	139,209	139,097
Alcohol, Drug Abuse & Mental Hlth Admin	384,660	236,082	89,757	5,330	-	816	-	48,126	4,549
Centers for Disease Control	117,785	117,785	-	-	-	-	-	-	-
Food & Drug Administration	99,000	99,000	-	-	-	-	-	-	-
Health Care Financing Admin	49,076	-	-	-	-	-	-	49,076	-
Health Resources and Services Administration	9,303	9,303	-	-	-	-	-	-	-
Human Development Services	8,496	-	-	-	-	-	-	8,496	-
National Institutes of Health	2,008,466	1,778,209	35,263	24,650	-	4,896	20,562	10,338	134,548
Office of the Secretary	7,795	-	-	-	-	468	-	7,327	-
Social Security Administration	15,846	-	-	-	-	-	-	15,846	-
Dept of Housing & Urban Development	6,102	-	-	11	-	155	50	5,767	119
Department of the Interior, total	253,031	69,417	-	17,214	103,800	8,918	51,782	1,700	200
Bureau of Land Management	2,000	1,[illegible]	-	-	100	-	-	-	-
Bureau of Mines	49,282	-	-	-	8,790	-	40,492	-	-
Bureau of Reclamation	3,533	898	-	80	244	-	2,311	-	-
Geological Survey	126,782	1,257	-	16,710	93,286	8,762	6,767	-	-
Mineral Management Service	2,212	-	-	-	-	-	2,212	-	-
National Park Service	19,422	15,992	-	-	1,380	150	-	1,700	200
Off of Surface Mining Reclamation & Enforcement	700	270	-	424	-	6	-	-	-
US Fish & Wildlife Service	49,100	49,100	-	-	-	-	-	-	-
Department of Justice, total	10,724	350	796	-	-	200	485	8,893	-
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	2,149	300	400	-	-	-	-	1,449	-
Immigration & Naturalization Svc	85	-	-	-	-	-	85	-	-
Office of Justice Programs	7,990	-	396	-	-	200	-	7,394	-
Department of Labor, total	21,841	-	-	-	-	-	-	21,581	260
Bureau of Labor Statistics	7,000	-	-	-	-	-	-	7,000	-
Employment Standards Administration	118	-	-	-	-	-	-	118	-
Employment and Training Admin	5,732	-	-	-	-	-	-	5,732	-
Labor-Management Relations & Coop Prog	303	-	-	-	-	-	-	303	-

Continued on next page

Table C-57. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin .	4,503	-	-	-	-	-	-	4,503	-
Office of Pension & Welfare Benefits	1,413	-	-	-	-	-	-	1,413	-
Office of the Secretary	2,472	-	-	-	-	-	-	2,212	260
Pension Benefit Guarantee Corporation	300	-	-	-	-	-	-	300	-
Department of State, total	1,277	-	-	-	-	-	-	1,277	-
Departmental funds	1,277	-	-	-	-	-	-	1,277	-
Department of Transportation, total ..	120,272	3,406	-	7,926	4,474	7,236	87,638	9,592	-
Coast Guard	4,600	-	-	326	-	1,096	2,720	458	-
Federal Aviation Administration	23,579	-	-	-	-	-	23,579	-	-
Federal Highway Administration	56,387	-	-	7,100	4,474	4,190	40,623	-	-
Federal Railroad Administration	7,480	-	-	-	-	-	7,405	75	-
Nat'l Highway Traffic Safety Admin .	26,242	3,406	-	-	-	1,950	12,102	8,784	-
Office of the Secretary	1,284	-	-	500	-	-	684	100	-
Research & Special Programs Admin ..	700	-	-	-	-	-	525	175	-
Department of the Treasury, total	12,952	250	126	1,326	-	7,177	-	4,073	-
Bureau of Engraving and Printing ...	906	-	-	906	-	-	-	-	-
Internal Revenue Service	11,250	-	-	-	-	7,177	-	4,073	-
Office of Protective Research	376	250	126	-	-	-	-	-	-
United States Customs Service	420	-	-	420	-	-	-	-	-
Department of Veterans Affairs	197,100	178,375	13,206	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov'tl Relations	1,130	-	-	-	-	-	-	1,130	-
Agency for Internat'l Development	216,012	193,147	-	-	912	297	1,171	10,422	10,063
Appalachian Regional Commission	767	-	-	-	-	-	-	767	-
Consumer Product Safety Commission ...	486	-	-	429	-	-	57	-	-
Environmental Protection Agency	222,635	100,908	1,042	29,217	45,545	3,078	38,647	-	4,198
Federal Communications Commission	1,101	-	-	-	-	51	723	327	-
Office of Thrift Supervision 2/	4,051	-	-	-	-	-	-	4,051	-
Federal Trade Commission	379	-	-	-	-	-	-	379	-
General Services Administration	540	-	-	-	-	-	540	-	-
International Trade Commission	8,671	-	-	-	-	-	-	8,671	-
Library of Congress	1,200	-	-	-	-	-	-	-	1,200
National Aeronautics & Space Admin ...	1,461,400	84,095	5,156	88,621	175,375	53,318	1,046,740	2,450	5,645
National Archives	100	-	-	75	-	25	-	-	-
National Science Foundation	107,767	9,624	313	11,632	5,366	4,274	55,074	8,016	13,468
Nuclear Regulatory Commission	114,815	-	-	-	-	-	114,815	-	-
Tennessee Valley Authority	11,662	2,913	-	3,461	753	-	-	161	4,374
US Arms Control & Disarmament Agency .	1,223	-	-	453	-	535	-	235	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-58. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	10,335,183	3,710,393	245,657	1,198,442	919,674	364,957	3,162,432	432,697	300,931
Departments									
Department of Agriculture, total	552,231	401,382	172	33,106	7,617	7,377	24,214	78,363	-
Agricultural Cooperative Service	2,779	-	-	-	-	-	-	2,779	-
Agricultural Marketing Service 1/	1,315	1,315	-	-	-	-	-	-	-
Agricultural Research Service	218,769	193,345	-	19,211	833	783	4,597	-	-
Animal & Plant Health Inspection Svc	7,809	7,809	-	-	-	-	-	-	-
Cooperative State Research Service	175,022	130,378	-	7,364	714	-	10,660	25,906	-
Economic Research Service	43,888	-	-	-	-	-	-	43,888	-
Federal Grain Inspection Service	799	799	-	-	-	-	-	-	-
Forest Service	90,200	58,161	172	6,531	6,070	4,519	8,957	5,790	-
Human Nutrition Information Service	9,031	9,031	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	2,075	-	-	-	-	2,075	-	-	-
Off of Internat'l Cooperation & Development	544	544	-	-	-	-	-	-	-
Department of Commerce, total	337,501	14,893	234	42,139	204,438	13,365	55,010	3,284	4,138
Bureau of the Census	2,364	-	206	-	-	1,491	-	609	58
Economic Development Administration	1,200	-	-	-	-	-	-	1,200	-
Nat'l Institute of Standards & Tech	86,728	-	-	28,509	124	9,983	47,941	171	-
Nat'l Oceanic & Atmospheric Admin	240,188	14,893	28	13,630	204,314	1,818	4,074	1,304	127
Nat'l Telecomm & Information Admin	7,021	-	-	-	-	73	2,995	-	3,953
Department of Defense, total	2,342,705	177,451	67,542	334,284	136,843	248,306	1,282,593	1,720	93,966
Department of the Army	542,565	100,466	33,408	70,782	12,778	14,748	307,240	1,720	1,423
Department of the Navy	424,703	11,143	11,969	46,431	13,413	44,499	289,324	-	7,924
Department of the Air Force	529,201	45,259	22,165	62,231	45,259	25,126	329,161	-	-
Defense agencies	846,236	20,583	-	154,840	65,393	163,933	356,868	-	84,619
Department of Education	128,155	15,222	8,508	-	-	530	7,966	95,929	-
Department of Energy	1,109,188	61,580	-	576,237	137,405	4,622	317,134	-	12,210
Dept of Hlth & Human Services, total	2,915,356	2,404,468	144,555	32,709	-	6,366	21,655	158,488	147,115
Alcohol, Drug Abuse & Mental Hlth Admin	458,663	279,657	107,384	6,736	-	901	-	58,674	5,311
Centers for Disease Control	125,936	125,936	-	-	-	-	-	-	-
Food & Drug Administration	110,000	110,000	-	-	-	-	-	-	-
Health Care Financing Admin	50,000	-	-	-	-	-	-	50,000	-
Health Resources and Services Administration	9,345	9,345	-	-	-	-	-	-	-
Human Development Services	11,364	-	-	-	-	-	-	11,364	-
National Institutes of Health	2,116,800	1,874,130	37,171	25,973	-	5,165	21,655	10,902	141,804
Office of Ass't Secy for Health	10,200	5,400	-	-	-	-	-	4,800	-
Office of the Secretary	5,001	-	-	-	-	300	-	4,701	-
Social Security Administration	18,047	-	-	-	-	-	-	18,047	-
Dept of Housing & Urban Development	7,507	-	-	172	-	338	254	5,529	1,214
Department of the Interior, total	270,224	78,490	-	18,113	107,156	9,232	55,433	1,800	-
Bureau of Land Management	2,100	2,000	-	-	100	-	-	-	-
Bureau of Mines	52,029	-	-	-	7,686	-	44,343	-	-
Bureau of Reclamation	4,163	742	-	1,030	140	-	2,251	-	-
Geological Survey	132,021	1,269	-	16,876	98,030	9,052	6,794	-	-
Mineral Management Service	2,045	-	-	-	-	-	2,045	-	-
National Park Service	19,500	16,400	-	-	1,200	100	-	1,800	-
Off of Surface Mining Reclamation & Enforcement	766	479	-	207	-	80	-	-	-
US Fish & Wildlife Service	57,600	57,600	-	-	-	-	-	-	-
Department of Justice, total	12,114	50	800	-	-	200	800	10,264	-
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	1,800	-	600	-	-	-	-	1,200	-
Immigration & Naturalization Svc	400	-	-	-	-	-	400	-	-
Office of Justice Programs	9,414	-	200	-	-	200	-	9,014	-
Department of Labor, total	21,986	-	-	-	-	-	-	21,986	-
Bureau of Labor Statistics	7,100	-	-	-	-	-	-	7,100	-
Employment Standards Administration	265	-	-	-	-	-	-	265	-
Employment and Training Admin	5,518	-	-	-	-	-	-	5,518	-
Labor-Management Relations & Coop Prog	70	-	-	-	-	-	-	70	-

Continued on next page

Table C-58. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin .	4,125	-	-	-	-	-	-	4,125	-
Office of Pension & Welfare Benefits	2,429	-	-	-	-	-	-	2,429	-
Office of the Secretary	2,179	-	-	-	-	-	-	2,179	-
Pension Benefit Guarantee Corporation	300	-	-	-	-	-	-	300	-
Department of State, total	1,190	-	-	-	-	-	-	1,190	-
Departmental funds	1,190	-	-	-	-	-	-	1,190	-
Department of Transportation, total ..	121,219	2,593	-	8,117	4,195	6,921	89,496	9,897	-
Coast Guard	5,589	-	-	224	-	1,515	3,012	838	-
Federal Aviation Administration	28,665	-	-	-	-	-	28,665	-	-
Federal Highway Administration	50,695	-	-	7,393	4,195	2,968	35,718	421	-
Federal Railroad Administration	10,037	-	-	-	-	-	9,937	100	-
Nat'l Highway Traffic Safety Admin .	23,857	2,593	-	-	-	2,438	10,508	8,318	-
Office of the Secretary	1,776	-	-	500	-	-	1,176	100	-
Research & Special Programs Admin ..	600	-	-	-	-	-	480	120	-
Department of the Treasury, total	15,413	250	235	1,824	-	8,360	-	4,744	-
Bureau of Engraving and Printing ...	1,424	-	-	1,424	-	-	-	-	-
Internal Revenue Service	13,104	-	-	-	-	8,360	-	4,744	-
Office of Protective Research	485	250	235	-	-	-	-	-	-
United States Customs Service	400	-	-	400	-	-	-	-	-
Department of Veterans Affairs	201,000	182,025	13,456	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov't Relations	1,360	-	-	-	-	-	-	1,360	-
Agency for Internat'l Development	161,672	139,101	-	-	292	315	3,556	8,686	9,722
Appalachian Regional Commission	1,000	-	-	-	-	-	-	1,000	-
Consumer Product Safety Commission ...	230	-	-	141	-	-	89	-	-
Environmental Protection Agency	240,431	107,185	1,151	29,831	49,032	3,998	45,200	42	3,992
Federal Communications Commission	1,988	-	-	-	-	70	1,518	400	-
Office of Thrift Supervision 2/.....	5,786	-	-	-	-	-	-	5,786	-
Federal Trade Commission	459	-	-	-	-	-	-	459	-
General Services Administration	805	-	-	-	-	-	805	-	-
International Trade Commission	9,595	-	-	-	-	-	-	9,595	-
Library of Congress	1,153	-	-	-	-	-	-	-	1,153
National Aeronautics & Space Admin ...	1,636,000	112,955	8,671	105,425	266,236	50,128	1,082,917	3,250	6,418
National Archives	100	-	-	75	-	25	-	-	-
National Science Foundation	114,830	10,255	333	12,394	5,718	4,554	58,683	8,541	14,352
Nuclear Regulatory Commission	109,290	-	-	-	-	-	109,290	-	-
Tennessee Valley Authority	13,811	2,493	-	3,760	742	-	-	165	6,651
US Arms Control & Disarmament Agency .	584	-	-	115	-	250	-	219	-
United States Information Agency	300	-	-	-	-	-	300	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-59. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	10,965,183	3,817,629	288,383	1,225,152	1,016561	413,492	3,430,601	456,918	316,447
Departments									
Department of Agriculture, total	570,084	417,304	167	34,288	7,529	7,403	22,973	80,420	-
Agricultural Cooperative Service	2,811	-	-	-	-	-	-	2,811	-
Agricultural Marketing Service 1/	1,364	1,364	-	-	-	-	-	-	-
Agricultural Research Service	235,124	207,799	-	20,647	896	842	4,940	-	-
Animal & Plant Health Inspection Svc	8,250	8,250	-	-	-	-	-	-	-
Cooperative State Research Service	172,495	131,554	-	7,292	731	-	9,324	23,594	-
Economic Research Service	48,385	-	-	-	-	-	-	48,385	-
Federal Grain Inspection Service	738	738	-	-	-	-	-	-	-
Forest Service	87,700	56,543	167	6,349	5,902	4,394	8,709	5,630	-
Human Nutrition Information Service	10,705	10,705	-	-	-	-	-	-	-
Nat'l Agricultural Statistics Svc	2,167	-	-	-	-	2,167	-	-	-
Off of Internat'l Cooperation & Development	345	345	-	-	-	-	-	-	-
Department of Commerce, total	329,428	8,555	232	44,448	201,518	14,700	54,029	1,799	4,147
Bureau of the Census	2,364	-	206	-	-	1,491	-	609	58
Nat'l Institute of Standards & Tech	90,945	-	-	31,756	138	11,318	47,556	177	-
Nat'l Oceanic & Atmospheric Admin	228,759	8,555	26	12,692	201,380	1,816	3,173	1,013	104
Nat'l Telecomm & Information Admin	7,360	-	-	-	-	75	3,300	-	3,985
Department of Defense, total	2,497,322	184,124	70,988	350,853	145,401	281,507	1,361,587	1,778	101,084
Department of the Army	604,268	103,316	34,702	83,285	15,050	18,826	331,095	1,778	16,216
Department of the Navy	464,225	12,180	13,082	50,751	14,661	48,622	316,266	-	8,663
Department of the Air Force	580,166	46,409	23,204	63,812	46,409	29,006	371,326	-	-
Defense agencies	848,663	22,219	-	153,005	69,281	185,053	342,900	-	76,205
Department of Education	147,597	15,383	8,741	-	-	535	7,773	115,165	-
Department of Energy	1,064,091	53,891	-	551,350	139,399	4,646	303,205	-	11,600
Dept of Hlth & Human Services, total	3,036,646	2,489,637	183,053	35,036	-	6,565	22,289	148,216	151,850
Alcohol, Drug Abuse & Mental Hlth Admin	516,344	288,561	144,793	8,302	-	948	-	67,848	5,892
Centers for Disease Control	130,790	130,790	-	-	-	-	-	-	-
Food & Drug Administration	125,500	125,500	-	-	-	-	-	-	-
Health Care Financing Admin	36,000	-	-	-	-	-	-	36,000	-
Health Resources and Services Administration	9,364	9,364	-	-	-	-	-	-	-
Human Development Services	11,854	-	-	-	-	-	-	11,854	-
National Institutes of Health	2,178,800	1,929,022	38,260	26,734	-	5,316	22,289	11,221	145,958
Office of Ass't Secy for Health	6,400	6,400	-	-	-	-	-	-	-
Office of the Secretary	5,017	-	-	-	-	301	-	4,716	-
Social Security Administration	16,577	-	-	-	-	-	-	16,577	-
Dept of Housing & Urban Development	17,713	-	-	-	-	4,473	101	12,621	518
Department of the Interior, total	261,116	75,975	-	18,786	106,049	10,071	47,290	2,945	-
Bureau of Land Management	3,000	2,900	-	-	100	-	-	-	-
Bureau of Mines	38,631	-	-	-	4,980	-	33,651	-	-
Bureau of Reclamation	6,054	1,254	-	143	654	-	3,958	45	-
Geological Survey	134,825	1,391	-	18,643	97,715	9,921	7,155	-	-
Mineral Management Service	2,526	-	-	-	-	-	2,526	-	-
National Park Service	22,750	17,800	-	-	1,900	150	-	2,900	-
Off of Surface Mining Reclamation & Enforcement	830	130	-	-	700	-	-	-	-
US Fish & Wildlife Service	52,500	52,500	-	-	-	-	-	-	-
Department of Justice, total	12,254	50	800	-	-	200	800	10,404	-
Drug Enforcement Administration	500	50	-	-	-	-	400	50	-
Federal Prison System	1,800	-	600	-	-	-	-	1,200	-
Immigration & Naturalization Svc	400	-	-	-	-	-	400	-	-
Office of Justice Programs	9,554	-	200	-	-	200	-	9,154	-
Department of Labor, total	26,344	-	-	-	-	-	-	23,094	3,250
Bureau of Labor Statistics	7,200	-	-	-	-	-	-	7,200	-
Employment Standards Administration	221	-	-	-	-	-	-	221	-
Employment and Training Admin	6,402	-	-	-	-	-	-	6,402	-
Labor-Management Relations & Coop Prog	70	-	-	-	-	-	-	70	-

Continued on next page

Table C-59. Federal obligations for applied research, by agency and field of science/engineering: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Occupational Safety & Health Admin.	4,125	-	-	-	-	-	-	4,125	-
Office of Pension & Welfare Benefits	2,580	-	-	-	-	-	-	2,580	-
Office of the Secretary	5,431	-	-	-	-	-	-	2,181	3,250
Pension Benefit Guarantee Corporation	315	-	-	-	-	-	-	315	-
Department of State, total	1,206	-	-	-	-	-	-	1,206	-
Departmental funds	1,206	-	-	-	-	-	-	1,206	-
Department of Transportation, total	129,236	2,766	558	8,867	5,576	7,273	93,332	10,864	-
Coast Guard	6,070	-	558	-	836	1,328	3,348	-	-
Federal Aviation Administration	31,600	-	-	-	-	-	31,600	-	-
Federal Highway Administration	51,544	-	-	8,367	4,740	3,345	34,624	468	-
Federal Railroad Administration	12,384	-	-	-	-	-	11,150	1,234	-
Nat'l Highway Traffic Safety Admin.	25,449	2,766	-	-	-	2,600	11,210	8,873	-
Office of the Secretary	1,589	-	-	500	-	-	900	189	-
Research & Special Programs Admin.	600	-	-	-	-	-	500	100	-
Department of the Treasury, total	15,310	250	235	1,721	-	8,360	-	4,744	-
Bureau of Engraving and Printing	1,071	-	-	1,071	-	-	-	-	-
Internal Revenue Service	13,104	-	-	-	-	8,360	-	4,744	-
Office of Protective Research	485	250	235	-	-	-	-	-	-
United States Customs Service	650	-	-	650	-	-	-	-	-
Department of Veterans Affairs	175,100	157,871	11,710	-	-	-	5,519	-	-
Other agencies									
Advisory Comm on Intergov'tl Relations	1,385	-	-	-	-	-	-	1,385	-
Agency for Internat'l Development	164,273	140,335	-	-	-	332	4,650	9,470	9,486
Appalachian Regional Commission	1,000	-	-	-	-	-	-	1,000	-
Consumer Product Safety Commission	395	-	-	150	-	-	245	-	-
Environmental Protection Agency	265,062	116,258	1,098	35,060	51,626	5,792	51,080	9	4,139
Federal Communications Commission	1,309	-	-	-	-	150	1,051	108	-
Office of Thrift Supervision 2/	6,360	-	-	-	-	-	-	6,360	-
Federal Trade Commission	477	-	-	-	-	-	-	477	-
General Services Administration	130	-	-	-	-	-	130	-	-
International Trade Commission	10,500	-	-	-	-	-	-	10,500	-
Library of Congress	2,171	-	-	-	-	-	-	-	2,171
National Aeronautics & Space Admin	1,969,825	141,585	10,424	126,933	352,982	55,799	1,271,455	3,708	6,939
National Archives	335	-	-	310	-	25	-	-	-
National Science Foundation	130,143	11,623	377	14,047	6,481	9,161	66,509	9,680	16,265
Nuclear Regulatory Commission	116,183	-	-	-	-	-	116,183	-	-
Tennessee Valley Authority	9,788	2,022	-	2,603	-	-	-	165	4,998
US Arms Control & Disarmament Agency	2,000	-	-	700	-	500	-	800	-
United States Information Agency	400	-	-	-	-	-	400	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-60. Federal obligations for applied research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	234,530	60,754	111,832	61,944	3,579,390	1,336,003	210,460	370,689	1,514,131	148,107
Departments										
Department of Agriculture, total	147	-	147	-	374,752	42,026	91,341	231,952	9,433	-
Agricultural Marketing Service 1/	-	-	-	-	1,254	-	-	1,254	-	-
Agricultural Research Service	-	-	-	-	184,526	5,629	23,988	152,273	2,636	-
Animal & Plant Health Inspection Svc	-	-	-	-	7,354	-	-	7,354	-	-
Cooperative State Research Service	-	-	-	-	121,891	16,619	37,159	61,316	6,797	-
Federal Grain Inspection Service	-	-	-	-	771	-	-	771	-	-
Forest Service	147	-	147	-	49,972	19,778	30,194	-	-	-
Human Nutrition Information Service	-	-	-	-	8,395	-	-	8,395	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	589	-	-	589	-	-
Department of Commerce, total	185	-	185	-	14,401	-	6,685	6,284	1,432	-
Bureau of the Census	159	-	159	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	26	-	26	-	14,401	-	6,685	6,284	1,432	-
Department of Defense, total	80,250	822	69,535	9,893	235,684	5,737	50,356	-	134,630	44,961
Department of the Army	44,902	-	44,902	-	127,323	3,320	396	-	123,607	-
Department of the Navy	11,696	822	981	9,893	11,122	291	-	-	10,082	749
Department of the Air Force	23,517	-	23,517	-	47,034	-	1,881	-	941	44,212
Defense agencies	135	-	135	-	50,205	2,126	48,079	-	-	-
Department of Education	8,289	467	3,705	4,117	14,398	2,583	-	-	8,476	3,139
Department of Energy	-	-	-	-	57,291	16,748	1,943	200	36,899	1,501
Dept of Hlth & Human Services, total	125,020	45,149	32,498	47,373	2,240,379	1,100,971	443	357	1,085,790	52,818
Alcohol, Drug Abuse & Mental Hlth Admin	89,757	45,149	32,498	12,110	236,082	135,555	357	357	92,060	7,753
Centers for Disease Control	-	-	-	-	117,785	-	-	-	117,785	-
Food & Drug Administration	-	-	-	-	99,000	48,510	-	-	50,490	-
Health Resources and Services Administration	-	-	-	-	9,303	-	-	-	9,303	-
National Institutes of Health	35,263	-	-	35,263	1,778,209	916,906	86	-	816,152	45,065
Department of the Interior, total	-	-	-	-	69,417	40,776	26,734	1,905	2	-
Bureau of Land Management	-	-	-	-	1,900	-	100	1,800	-	-
Bureau of Reclamation	-	-	-	-	898	-	898	-	-	-
Geological Survey	-	-	-	-	1,257	576	576	105	-	-
National Park Service	-	-	-	-	15,992	1,990	14,000	-	2	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	270	-	270	-	-	-
US Fish & Wildlife Service	-	-	-	-	49,100	38,210	10,890	-	-	-
Department of Justice, total	796	-	671	125	350	-	-	50	-	300
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	400	-	400	-	300	-	-	-	-	300
Office of Justice Programs	396	-	271	125	-	-	-	-	-	-
Department of Transportation, total	-	-	-	-	3,406	3,406	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	3,406	3,406	-	-	-	-
Department of the Treasury, total	126	-	-	126	250	-	-	-	250	-
Office of Protective Research	126	-	-	126	250	-	-	-	250	-
Department of Veterans Affairs	13,206	13,206	-	-	178,375	21,287	-	-	157,088	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	193,147	20,464	3,308	120,586	27,858	20,931
Environmental Protection Agency	1,042	1,042	-	-	100,908	58,797	23,914	6,404	11,793	-
National Aeronautics & Space Admin	5,156	-	5,073	83	84,095	19,100	261	38	40,280	24,416
National Science Foundation	313	68	18	227	9,624	4,108	5,475	-	-	41
Tennessee Valley Authority	-	-	-	-	2,913	-	-	2,913	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-61. Federal obligations for applied research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	245,657	69,847	117,363	58,447	3,710,393	1,443,852	187,218	351,941	1,571,523	155,859
Departments										
Department of Agriculture, total	172	-	172	-	401,382	45,833	100,206	244,988	10,355	-
Agricultural Marketing Service 1/	-	-	-	-	1,315	-	-	1,315	-	-
Agricultural Research Service	-	-	-	-	193,345	5,642	24,894	159,778	3,031	-
Animal & Plant Health Inspection Svc	-	-	-	-	7,809	-	-	7,809	-	-
Cooperative State Research Service	-	-	-	-	130,378	17,172	40,170	65,712	7,324	-
Federal Grain Inspection Service	-	-	-	-	799	-	-	799	-	-
Forest Service	172	-	172	-	58,161	23,019	35,142	-	-	-
Human Nutrition Information Service	-	-	-	-	9,031	-	-	9,031	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	544	-	-	544	-	-
Department of Commerce, total	234	-	234	-	14,893	-	6,588	6,797	1,508	-
Bureau of the Census	206	-	206	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	28	-	28	-	14,893	-	6,588	6,797	1,508	-
Department of Defense, total	67,542	2,893	63,424	1,225	177,451	7,919	20,983	-	105,387	43,162
Department of the Army	33,408	726	32,682	-	100,466	5,765	744	-	93,957	-
Department of the Navy	11,969	2,167	8,577	1,225	11,143	-	-	-	10,525	618
Department of the Air Force	22,165	-	22,165	-	48,259	-	1,810	-	905	42,544
Defense agencies	-	-	-	-	20,583	2,154	18,429	-	-	-
Department of Education	8,508	498	3,739	4,271	15,222	2,639	-	-	9,172	3,411
Department of Energy	-	-	-	-	61,580	20,494	2,114	300	36,861	1,811
Dept of Hlth & Human Services, total	144,555	53,223	38,952	52,380	2,404,468	1,182,897	502	417	1,163,979	56,673
Alcohol, Drug Abuse & Mental Hlth Admin	107,384	53,223	38,952	15,209	279,657	162,616	417	417	107,035	9,172
Centers for Disease Control	-	-	-	-	125,936	-	-	-	125,936	-
Food & Drug Administration	-	-	-	-	110,000	53,920	-	-	56,080	-
Health Resources and Services Administration	-	-	-	-	9,345	-	-	-	9,345	-
National Institutes of Health	37,171	-	-	37,171	1,874,130	966,361	85	-	860,183	47,501
Office of Ass't Secy for Health	-	-	-	-	5,400	-	-	-	5,400	-
Department of the Interior, total	-	-	-	-	78,490	48,724	27,761	2,005	-	-
Bureau of Land Management	-	-	-	-	2,000	-	100	1,900	-	-
Bureau of Reclamation	-	-	-	-	742	-	742	-	-	-
Geological Survey	-	-	-	-	1,269	582	582	105	-	-
National Park Service	-	-	-	-	16,400	200	16,200	-	-	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	479	-	479	-	-	-
US Fish & Wildlife Service	-	-	-	-	57,600	47,942	9,658	-	-	-
Department of Justice, total	800	-	800	-	50	-	-	50	-	-
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	600	-	600	-	-	-	-	-	-	-
Office of Justice Programs	200	-	200	-	-	-	-	-	-	-
Department of Transportation, total	-	-	-	-	2,593	2,593	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	2,593	2,593	-	-	-	-
Department of the Treasury, total	235	-	-	235	250	-	-	-	250	-
Office of Protective Research	235	-	-	235	250	-	-	-	250	-
Department of Veterans Affairs	13,456	13,156	300	-	182,025	21,687	-	-	160,338	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	139,101	16,577	742	85,677	16,848	19,257
Environmental Protection Agency	1,151	-	1,151	-	107,185	61,908	22,181	9,169	13,927	-
National Aeronautics & Space Admin	8,671	5	8,572	94	112,955	28,204	307	45	52,898	31,501
National Science Foundation	333	72	19	242	10,255	4,377	5,834	-	-	44
Tennessee Valley Authority	-	-	-	-	2,493	-	-	2,493	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-62. Federal obligations for applied research in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	288,383	73,219	126,349	88,815	3,817,629	1,479,795	192,277	386,923	1,600,451	158,183
Departments										
Department of Agriculture, total	167	-	167	-	417,304	51,728	96,303	262,950	6,323	-
Agricultural Marketing Service 1/	-	-	-	-	1,364	-	-	1,364	-	-
Agricultural Research Service	-	-	-	-	207,799	6,064	26,755	171,722	3,258	-
Animal & Plant Health Inspection Svc	-	-	-	-	8,250	-	-	8,250	-	-
Cooperative State Research Service	-	-	-	-	131,554	23,283	35,380	69,826	3,065	-
Federal Grain Inspection Service	-	-	-	-	738	-	-	738	-	-
Forest Service	167	-	167	-	56,549	22,381	34,168	-	-	-
Human Nutrition Information Service	-	-	-	-	10,705	-	-	10,705	-	-
Off of Internat'l Cooperation & Development	-	-	-	-	345	-	-	345	-	-
Department of Commerce, total	232	-	232	-	8,555	-	2,246	5,480	829	-
Bureau of the Census	206	-	206	-	-	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	26	-	26	-	8,555	-	2,246	5,480	829	-
Department of Defense, total	70,988	3,246	66,413	1,329	184,124	8,915	22,615	-	108,282	44,312
Department of the Army	34,702	910	33,792	-	103,316	5,570	844	-	96,902	-
Department of the Navy	13,082	2,336	9,417	1,329	12,180	1,041	-	-	10,452	687
Department of the Air Force	23,204	-	23,204	-	46,409	-	1,856	-	928	43,625
Defense agencies	-	-	-	-	22,219	2,304	19,915	-	-	-
Department of Education	8,741	494	3,709	4,538	15,383	2,637	-	-	9,098	3,648
Department of Energy	-	-	-	-	53,891	12,479	1,445	325	37,015	2,627
Dept of Hlth & Human Services, total	183,053	57,953	43,262	81,838	2,489,637	1,243,382	550	463	1,186,659	58,583
Alcohol, Drug Abuse & Mental Hlth Admin	144,793	57,953	43,262	43,578	288,561	186,796	463	463	91,148	9,691
Centers for Disease Control	-	-	-	-	130,790	-	-	-	130,790	-
Food & Drug Administration	-	-	-	-	125,500	61,920	-	-	63,580	-
Health Resources and Services Administration	-	-	-	-	9,364	-	-	-	9,364	-
National Institutes of Health	38,260	-	-	38,260	1,929,022	994,666	87	-	885,377	48,892
Office of Ass't Secy for Health	-	-	-	-	6,400	-	-	-	6,400	-
Department of the Interior, total	-	-	-	-	75,975	33,818	39,352	2,805	-	-
Bureau of Land Management	-	-	-	-	2,900	-	200	2,700	-	-
Bureau of Reclamation	-	-	-	-	1,254	-	1,254	-	-	-
Geological Survey	-	-	-	-	1,391	643	643	105	-	-
National Park Service	-	-	-	-	17,800	100	17,700	-	-	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	130	-	130	-	-	-
US Fish & Wildlife Service	-	-	-	-	52,500	33,075	19,425	-	-	-
Department of Justice, total	800	-	300	500	50	-	-	50	-	-
Drug Enforcement Administration	-	-	-	-	50	-	-	50	-	-
Federal Prison System	600	-	100	500	-	-	-	-	-	-
Office of Justice Programs	200	-	200	-	-	-	-	-	-	-
Department of Transportation, total	558	-	558	-	2,766	2,766	-	-	-	-
Coast Guard	558	-	558	-	-	-	-	-	-	-
Nat'l Highway Traffic Safety Admin	-	-	-	-	2,766	2,766	-	-	-	-
Department of the Treasury, total	235	-	-	235	250	-	-	-	250	-
Office of Protective Research	235	-	-	235	250	-	-	-	250	-
Department of Veterans Affairs	11,710	11,440	270	-	157,871	14,018	-	-	143,853	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	140,335	13,085	529	98,826	10,957	16,938
Environmental Protection Agency	1,098	-	1,098	-	116,258	64,997	22,304	13,955	15,002	-
National Aeronautics & Space Admin	10,424	4	10,318	102	141,585	27,009	321	47	82,183	32,025
National Science Foundation	377	82	22	273	11,623	4,961	6,612	-	-	50
Tennessee Valley Authority	-	-	-	-	2,022	-	-	2,022	-	-

n.e.c. = Not elsewhere classified.

1/ Includes funds for the office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-63. Federal obligations for applied research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	1,198,757	17,296	278,005	795,465	107,991	756,339	271,640	207,847	198,374	78,478
Departments										
Department of Agriculture, total	31,088	-	29,099	1,989	-	6,774	2,359	4,415	-	-
Agricultural Research Service	18,336	-	17,409	927	-	854	694	160	-	-
Cooperative State Research Service	7,141	-	7,141	-	-	704	704	-	-	-
Forest Service	5,611	-	4,549	1,062	-	5,216	961	4,255	-	-
Department of Commerce, total	39,498	116	15,228	24,144	10	200,434	50,856	4,246	142,738	2,394
Nat'l Institute of Standards & Tech	26,644	116	8,551	17,967	10	369	-	369	-	-
Nat'l Oceanic & Atmospheric Admin	12,854	-	6,677	6,177	-	200,065	50,856	3,877	142,738	2,594
Department of Defense, total	348,460	1,672	64,394	205,379	77,015	148,721	68,565	56,349	8,541	15,266
Department of the Army	80,810	-	44,864	5,199	30,747	17,703	9,030	4,386	230	4,057
Department of the Navy	47,199	1,672	776	41,104	3,647	13,977	4,974	-	8,311	692
Department of the Air Force	64,672	-	18,754	42,684	3,234	48,171	40,919	7,252	-	-
Defense agencies	155,779	-	-	116,392	39,387	68,870	13,642	44,711	-	10,517
Department of Energy	589,366	-	78,272	503,569	7,525	64,185	9,136	36,948	-	18,101
Dept of Hlth & Human Services, total	29,980	-	26,019	3,907	54	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	5,330	-	5,330	-	-	-	-	-	-	-
National Institutes of Health	24,650	-	20,689	3,907	54	-	-	-	-	-
Dept of Housing & Urban Development	11	-	11	-	-	-	-	-	-	-
Department of the Interior, total	17,214	-	14,485	2,305	424	103,800	224	85,783	10,697	7,096
Bureau of Land Management	-	-	-	-	-	100	100	-	-	-
Bureau of Mines	-	-	-	-	-	8,790	-	2,721	-	6,069
Bureau of Reclamation	80	-	80	-	-	244	124	93	-	27
Geological Survey	16,710	-	14,405	2,305	-	93,286	-	82,589	10,697	-
National Park Service	-	-	-	-	-	1,380	-	380	-	1,000
Off of Surface Mining Reclamation & Enforcement	424	-	-	-	424	-	-	-	-	-
Department of Transportation, total	7,926	-	6,410	1,016	500	4,474	-	4,474	-	-
Coast Guard	326	-	326	-	-	-	-	-	-	-
Federal Highway Administration	7,100	-	6,084	1,016	-	4,474	-	4,474	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	1,326	-	758	250	318	-	-	-	-	-
Bureau of Engraving and Printing	906	-	588	-	318	-	-	-	-	-
United States Customs Service	420	-	170	250	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	-	912	-	-	-	912
Consumer Product Safety Commission	429	-	429	-	-	-	-	-	-	-
Environmental Protection Agency	29,217	-	26,920	2,297	-	45,545	40,053	3,580	1,912	-
National Aeronautics & Space Admin	88,621	15,250	6,980	45,173	21,218	175,375	98,275	10,350	32,617	34,133
National Archives	75	-	55	20	-	-	-	-	-	-
National Science Foundation	11,632	258	5,284	5,342	748	5,366	1,419	1,702	1,869	376
Tennessee Valley Authority	3,461	-	3,461	-	-	753	753	-	-	-
US Arms Control & Disarmament Agency	453	-	200	74	179	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-64. Federal obligations for applied research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	1,198,442	24,798	306,526	766,683	100,435	919,674	338,564	220,287	208,741	152,082
Departments										
Department of Agriculture, total	33,106	-	30,942	2,164	-	7,617	2,521	5,096	-	-
Agricultural Research Service	19,211	-	18,283	928	-	833	689	144	-	-
Cooperative State Research Service	7,364	-	7,364	-	-	714	714	-	-	-
Forest Service	6,531	-	5,295	1,236	-	6,070	1,118	4,952	-	-
Department of Commerce, total	42,139	141	15,392	26,606	-	204,438	52,500	4,047	145,183	2,708
Nat'l Institute of Standards & Tech	28,509	141	8,577	19,791	-	124	-	124	-	-
Nat'l Oceanic & Atmospheric Admin	13,630	-	6,815	6,815	-	204,314	52,500	3,923	145,183	2,708
Department of Defense, total	334,284	1,341	69,190	207,721	56,032	136,843	63,723	52,834	7,577	12,709
Department of the Army	70,782	-	50,369	6,522	13,891	12,778	6,695	4,479	354	1,250
Department of the Navy	46,431	1,341	774	40,240	4,076	13,413	5,365	-	7,223	825
Department of the Air Force	62,231	-	18,047	41,072	3,112	45,259	39,375	5,884	-	-
Defense agencies	154,840	-	-	119,887	34,953	65,393	12,288	42,471	-	10,634
Department of Energy	576,237	4,940	92,135	473,340	5,822	137,405	8,693	43,645	-	85,067
Dept of Hlth & Human Services, total	32,709	-	28,539	4,104	66	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	6,736	-	6,736	-	-	-	-	-	-	-
National Institutes of Health	25,973	-	21,803	4,104	66	-	-	-	-	-
Dept of Housing & Urban Development	172	-	172	-	-	-	-	-	-	-
Department of the Interior, total	18,113	-	14,592	2,328	1,193	107,156	126	90,380	10,026	6,624
Bureau of Land Management	-	-	-	-	-	100	100	-	-	-
Bureau of Mines	-	-	-	-	-	7,686	-	1,662	-	6,024
Bureau of Reclamation	1,030	-	44	-	986	140	26	114	-	-
Geological Survey	16,876	-	14,548	2,328	-	98,030	-	88,004	10,026	-
National Park Service	-	-	-	-	-	1,200	-	600	-	600
Off of Surface Mining Reclamation & Enforcement	207	-	-	-	207	-	-	-	-	-
Department of Transportation, total	8,117	-	6,958	659	500	4,195	-	4,195	-	-
Coast Guard	224	-	224	-	-	-	-	-	-	-
Federal Highway Administration	7,393	-	6,734	659	-	4,195	-	4,195	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	1,824	-	1,160	400	264	-	-	-	-	-
Bureau of Engraving and Printing	1,424	-	1,160	-	264	-	-	-	-	-
United States Customs Service	400	-	-	400	-	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	-	-	-	-	-	292	-	-	-	292
Consumer Product Safety Commission	141	-	141	-	-	-	-	-	-	-
Environmental Protection Agency	29,831	-	27,464	2,367	-	49,032	42,953	4,067	2,012	-
National Aeronautics & Space Admin	105,425	18,101	10,361	41,232	35,731	266,236	165,794	14,209	41,952	44,281
National Archives	75	-	55	20	-	-	-	-	-	-
National Science Foundation	12,394	275	5,630	5,692	797	5,718	1,512	1,814	1,991	401
Tennessee Valley Authority	3,760	-	3,760	-	-	742	742	-	-	-
US Arms Control & Disarmament Agency	115	-	35	50	30	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-65. Federal obligations for applied research in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	1,225,152	23,471	287,651	780,087	133,943	1,016561	415,924	212,974	210,053	177,610
Departments										
Department of Agriculture, total	34,288	-	32,090	2,198	-	7,529	2,559	4,970	-	-
Agricultural Research Service	20,647	-	19,650	997	-	896	741	155	-	-
Cooperative State Research Service	7,292	-	7,292	-	-	731	731	-	-	-
Forest Service	6,349	-	5,148	1,201	-	5,902	1,087	4,815	-	-
Department of Commerce, total	44,448	144	15,400	28,793	111	201,518	61,181	1,822	136,119	2,396
Nat'l Institute of Standards & Tech	31,756	144	10,111	21,390	111	138	-	138	-	-
Nat'l Oceanic & Atmospheric Admin	12,692	-	5,289	7,403	-	201,380	61,181	1,684	136,119	2,396
Department of Defense, total	350,853	1,455	70,404	203,058	75,936	145,401	68,170	53,762	8,240	15,229
Department of the Army	83,285	-	51,059	5,637	26,589	15,050	6,162	4,437	350	4,101
Department of the Navy	50,751	1,455	840	44,034	4,422	14,661	5,875	-	7,890	896
Department of the Air Force	63,812	-	18,505	42,116	3,191	46,409	40,376	6,033	-	-
Defense agencies	153,005	-	-	111,271	41,734	69,281	15,757	43,292	-	10,232
Department of Energy	551,350	-	61,125	477,828	12,397	139,399	8,626	31,280	-	99,493
Dept of Hlth & Human Services, total	35,036	-	30,744	4,227	65	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	8,302	-	8,302	-	-	-	-	-	-	-
National Institutes of Health	26,734	-	22,442	4,227	65	-	-	-	-	-
Department of the Interior, total	18,786	-	16,215	2,571	-	106,049	603	89,842	10,674	4,930
Bureau of Land Management	-	-	-	-	-	100	100	-	-	-
Bureau of Mines	-	-	-	-	-	4,980	-	1,150	-	3,830
Bureau of Reclamation	143	-	143	-	-	654	503	151	-	-
Geological Survey	18,643	-	16,072	2,571	-	97,715	-	87,041	10,674	-
National Park Service	-	-	-	-	-	1,900	-	1,500	-	400
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	-	700	-	-	-	700
Department of Transportation, total	8,867	-	7,607	760	500	5,576	-	4,740	836	-
Coast Guard	-	-	-	-	-	836	-	-	836	-
Federal Highway Administration	8,367	-	7,607	760	-	4,740	-	4,740	-	-
Office of the Secretary	500	-	-	-	500	-	-	-	-	-
Department of the Treasury, total	1,721	-	971	650	100	-	-	-	-	-
Bureau of Engraving and Printing	1,071	-	971	-	100	-	-	-	-	-
United States Customs Service	650	-	-	650	-	-	-	-	-	-
Other agencies										
Consumer Product Safety Commission	150	-	150	-	-	-	-	-	-	-
Environmental Protection Agency	35,060	-	32,216	2,844	-	51,626	44,082	4,877	2,667	-
National Aeronautics & Space Admin	126,933	21,560	11,285	50,407	43,681	352,982	228,989	19,625	49,260	55,108
National Archives	310	-	60	250	-	-	-	-	-	-
National Science Foundation	14,047	312	6,381	6,451	903	6,481	1,714	2,056	2,257	454
Tennessee Valley Authority	2,603	-	2,603	-	-	-	-	-	-	-
US Arms Control & Disarmament Agency	700	-	400	50	250	-	-	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-66. Federal obligations for applied research in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	3,258,264	658,913	618,529	92,157	177,940	669,259	156,525	266,161	618,780
Departments									
Department of Agriculture, total	22,791	-	-	4,794	3,386	203	2,246	-	12,162
Agricultural Research Service	4,957	-	-	3,151	1,200	173	433	-	-
Cooperative State Research Service	10,139	-	-	-	-	-	-	-	10,139
Forest Service	7,695	-	-	1,643	2,186	30	1,813	-	2,023
Department of Commerce, total	47,888	-	-	2,555	4,502	10,956	1,233	10,619	18,023
Nat'l Institute of Standards & Tech	40,805	-	-	2,555	3,339	6,455	1,233	10,619	16,604
Nat'l Oceanic & Atmospheric Admin	4,090	-	-	-	1,163	1,508	-	-	1,419
Nat'l Telecomm & Information Admin	2,993	-	-	-	-	2,993	-	-	-
Department of Defense, total	1,462,108	210,549	76,410	40,176	59,859	608,542	116,585	211,311	138,676
Department of the Army	325,233	41,479	4,707	20,461	33,679	147,852	51,390	12,989	12,676
Department of the Navy	286,157	40,139	5,137	8,091	6,473	110,708	50,143	23,826	41,640
Department of the Air Force	391,807	128,931	60,204	11,624	2,911	142,984	15,052	22,576	7,525
Defense agencies	458,911	-	6,362	-	16,796	206,998	-	151,920	76,835
Department of Education	7,323	-	-	-	-	-	-	-	7,323
Department of Energy	294,351	-	-	3,303	29,253	22,292	891	19,676	218,936
Dept of Hlth & Human Services, total	20,562	-	-	-	-	-	-	-	20,562
National Institutes of Health	20,562	-	-	-	-	-	-	-	20,562
Dept of Housing & Urban Development	50	-	-	-	-	-	-	-	50
Department of the Interior, total	51,782	-	-	5,820	3,564	640	537	11,362	29,859
Bureau of Mines	40,492	-	-	-	-	-	-	11,284	29,208
Bureau of Reclamation	2,311	-	-	-	1,447	466	112	33	253
Geological Survey	6,767	-	-	4,610	1,628	174	355	-	-
Mineral Management Service	2,212	-	-	1,210	489	-	70	45	398
Department of Justice, total	485	200	-	-	-	230	55	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	85	-	-	-	-	30	55	-	-
Department of Transportation, total	87,638	3,537	1,699	6,927	54,832	5,193	14,646	179	625
Coast Guard	2,720	-	-	-	1,984	450	286	-	-
Federal Aviation Administration	23,579	3,537	1,415	-	15,326	3,301	-	-	-
Federal Highway Administration	40,623	-	-	6,555	33,469	522	48	29	-
Federal Railroad Administration	7,405	-	-	372	4,053	745	1,860	150	225
Nat'l Highway Traffic Safety Admin	12,102	-	-	-	-	-	12,102	-	-
Office of the Secretary	684	-	284	-	-	-	-	-	400
Research & Special Programs Admin	525	-	-	-	-	175	350	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	1,171	-	-	-	171	1,000	-	-	-
Consumer Product Safety Commission	57	-	-	-	-	-	-	-	57
Environmental Protection Agency	38,647	-	-	16,893	15,436	412	3,600	758	1,548
Federal Communications Commission	723	-	-	-	-	723	-	-	-
General Services Administration	540	-	-	-	540	-	-	-	-
National Aeronautics & Space Admin	1,046,740	444,529	540,420	2,000	-	2,314	7,473	7,546	42,458
National Science Foundation	55,074	98	-	9,689	6,397	16,754	9,259	4,710	8,167
Nuclear Regulatory Commission	114,815	-	-	-	-	-	-	-	114,815

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-67. Federal obligations for applied research in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	3,162,432	727,417	548,415	94,660	185,363	534,770	162,559	253,663	655,585
Departments									
Department of Agriculture, total	24,214	-	-	4,923	3,526	52	2,699	-	13,014
Agricultural Research Service	4,597	-	-	3,011	982	16	588	-	-
Cooperative State Research Service	10,660	-	-	-	-	-	-	-	10,660
Forest Service	8,957	-	-	1,912	2,544	36	2,111	-	2,354
Department of Commerce, total	55,010	-	-	2,924	6,698	11,710	1,383	11,268	21,027
Nat'l Institute of Standards & Tech	47,941	-	-	2,924	5,636	7,196	1,383	11,268	19,534
Nat'l Oceanic & Atmospheric Admin	4,074	-	-	-	1,062	1,519	-	-	1,493
Nat'l Telecomm & Information Admin	2,995	-	-	-	-	2,995	-	-	-
Department of Defense, total	1,282,593	184,713	81,269	34,767	58,898	465,423	121,207	193,898	142,418
Department of the Army	307,240	39,368	1,342	22,738	33,909	110,894	64,486	13,242	21,261
Department of the Navy	289,324	39,209	16,060	8,770	10,318	108,759	46,431	23,422	36,355
Department of the Air Force	329,161	106,136	57,931	3,259	2,896	122,218	10,290	19,190	7,241
Defense agencies	356,868	-	5,936	-	11,775	123,552	-	138,044	77,561
Department of Education	7,966	-	-	-	-	-	-	-	7,966
Department of Energy	317,134	-	-	4,066	31,694	23,987	1,010	19,760	236,617
Dept of Hlth & Human Services, total	21,655	-	-	-	-	-	-	-	21,655
National Institutes of Health	21,655	-	-	-	-	-	-	-	21,655
Dept of Housing & Urban Development	254	-	-	-	-	-	-	-	254
Department of the Interior, total	55,433	-	-	5,665	3,255	600	564	14,048	31,301
Bureau of Mines	44,343	-	-	-	-	-	-	14,001	30,342
Bureau of Reclamation	2,251	-	-	18	1,182	427	132	35	457
Geological Survey	6,794	-	-	4,655	1,614	173	352	-	-
Mineral Management Service	2,045	-	-	992	459	-	80	12	502
Department of Justice, total	800	200	-	-	-	400	200	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	400	-	-	-	-	200	200	-	-
Department of Transportation, total	89,496	4,156	2,583	6,286	55,594	5,782	13,658	297	1,140
Coast Guard	3,012	-	-	-	2,062	615	335	-	-
Federal Aviation Administration	28,665	4,156	2,007	-	18,919	3,583	-	-	-
Federal Highway Administration	35,718	-	-	5,786	29,093	419	-	-	420
Federal Railroad Administration	9,937	-	-	500	5,520	1,000	2,500	297	120
Nat'l Highway Traffic Safety Admin	10,508	-	-	-	-	-	10,508	-	-
Office of the Secretary	1,176	-	576	-	-	-	-	-	600
Research & Special Programs Admin	480	-	-	-	-	165	315	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	3,556	-	-	-	156	2,000	-	-	1,400
Consumer Product Safety Commission	89	-	-	-	-	-	-	-	89
Environmental Protection Agency	45,200	-	-	20,183	17,921	436	4,324	391	1,945
Federal Communications Commission	1,518	-	-	-	-	1,518	-	-	-
General Services Administration	805	-	-	-	805	-	-	-	-
National Aeronautics & Space Admin	1,082,917	538,244	464,563	5,522	-	4,710	7,648	8,982	53,248
National Science Foundation	58,683	104	-	10,324	6,816	17,852	9,866	5,019	8,702
Nuclear Regulatory Commission	109,290	-	-	-	-	-	-	-	109,290
United States Information Agency	300	-	-	-	-	300	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-68. Federal obligations for applied research in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	3,430,601	776,641	716,136	98,102	194,676	535,607	179,039	298,991	631,409
Departments									
Department of Agriculture, total	22,973	-	-	5,095	3,528	52	2,684	-	11,614
Agricultural Research Service	4,940	-	-	3,236	1,055	17	632	-	-
Cooperative State Research Service	9,324	-	-	-	-	-	-	-	9,324
Forest Service	8,709	-	-	1,859	2,473	35	2,052	-	2,290
Department of Commerce, total	54,029	-	-	4,262	4,424	15,374	1,825	11,990	16,154
Nat'l Institute of Standards & Tech	47,556	-	-	4,262	3,527	10,616	1,825	11,990	15,336
Nat'l Oceanic & Atmospheric Admin	3,173	-	-	-	897	1,458	-	-	818
Nat'l Telecomm & Information Admin	3,300	-	-	-	-	3,300	-	-	-
Department of Defense, total	1,361,587	209,780	86,726	32,844	71,402	455,680	129,646	237,405	138,104
Department of the Army	331,095	44,136	1,171	19,985	42,590	119,525	63,832	18,125	21,731
Department of the Navy	316,266	43,125	17,427	9,517	11,196	118,594	50,962	25,415	40,030
Department of the Air Force	371,326	122,519	59,458	3,342	2,970	141,083	14,852	19,677	7,425
Defense agencies	342,900	-	8,670	-	14,646	76,478	-	174,188	68,918
Department of Education	7,773	-	-	-	-	-	-	-	7,773
Department of Energy	303,205	-	-	2,401	32,597	24,703	865	18,862	223,777
Dept of Hlth & Human Services, total	22,289	-	-	-	-	-	-	-	22,289
National Institutes of Health	22,289	-	-	-	-	-	-	-	22,289
Dept of Housing & Urban Development	101	-	-	-	-	-	-	-	101
Department of the Interior, total	47,290	-	-	6,551	3,863	777	852	12,830	22,417
Bureau of Mines	33,651	-	-	-	-	-	-	12,732	20,919
Bureau of Reclamation	3,958	-	-	142	1,828	610	281	86	1,011
Geological Survey	7,155	-	-	5,143	1,515	167	330	-	-
Mineral Management Service	2,526	-	-	1,266	520	-	241	12	487
Department of Justice, total	800	200	-	-	-	400	200	-	-
Drug Enforcement Administration	400	200	-	-	-	200	-	-	-
Immigration & Naturalization Svc	400	-	-	-	-	200	200	-	-
Department of Transportation, total	93,332	4,740	2,512	6,865	53,902	8,018	14,531	250	2,514
Coast Guard	3,348	-	-	-	585	1,399	519	-	845
Federal Aviation Administration	31,600	4,740	2,212	-	20,540	4,108	-	-	-
Federal Highway Administration	34,624	-	-	6,495	27,202	478	-	-	449
Federal Railroad Administration	11,150	-	-	370	5,575	1,858	2,477	250	620
Nat'l Highway Traffic Safety Admin	11,210	-	-	-	-	-	11,210	-	-
Office of the Secretary	900	-	300	-	-	-	-	-	600
Research & Special Programs Admin	500	-	-	-	-	175	325	-	-
Department of Veterans Affairs	5,519	-	-	-	-	-	-	-	5,519
Other agencies									
Agency for Internat'l Development	4,650	-	-	-	150	2,700	-	-	1,800
Consumer Product Safety Commission	245	-	-	-	-	-	-	-	245
Environmental Protection Agency	51,080	-	-	24,301	16,955	496	5,453	396	3,479
Federal Communications Commission	1,051	-	-	-	-	1,051	-	-	-
General Services Administration	130	-	-	-	130	-	-	-	-
National Aeronautics & Space Admin	1,271,455	561,803	626,898	4,082	-	5,723	11,801	11,570	49,578
National Science Foundation	66,509	118	-	11,701	7,725	20,233	11,182	5,688	9,862
Nuclear Regulatory Commission	116,183	-	-	-	-	-	-	-	116,183
United States Information Agency	400	-	-	-	-	400	-	-	-

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-69. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Total, all agencies	389,659	68,266	205,077	116,316	396,421	1,780	129,093	8,063	55,883	201,602
Departments										
Department of Agriculture, total	6,558	5,900	658	-	75,184	-	67,828	299	6,325	732
Agricultural Cooperative Service	-	-	-	-	2,821	-	2,821	-	-	-
Agricultural Research Service	731	73	658	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	24,810	-	19,864	-	4,946	-
Economic Research Service	-	-	-	-	42,577	-	40,865	128	852	732
Forest Service	3,883	3,883	-	-	4,976	-	4,278	171	527	-
Nat'l Agricultural Statistics Svc	1,944	1,944	-	-	-	-	-	-	-	-
Department of Commerce, total	12,734	4,940	5,368	2,426	2,844	-	2,003	567	12	262
Bureau of the Census	1,148	996	152	-	468	-	255	213	-	-
Economic Development Administration	-	-	-	-	1,007	-	1,007	-	-	-
Nat'l Institute of Standards & Tech	9,641	3,290	3,925	2,426	162	-	150	-	12	-
Nat'l Oceanic & Atmospheric Admin	1,808	654	1,154	-	1,207	-	591	354	-	262
Nat'l Telecomm & Information Admin	137	-	137	-	-	-	-	-	-	-
Department of Defense, total	273,697	17,760	145,665	110,272	2,669	-	1,399	338	932	-
Department of the Army	8,225	933	5,933	1,359	2,331	-	1,399	-	932	-
Department of the Navy	52,044	11,086	30,067	10,891	-	-	-	-	-	-
Department of the Air Force	29,396	4,115	21,459	3,822	-	-	-	-	-	-
Defense agencies	184,032	1,626	88,206	94,200	338	-	-	338	-	-
Department of Education	490	-	-	490	87,023	-	-	-	1,258	85,765
Department of Energy	4,736	-	4,736	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	6,180	5,103	1,077	-	139,209	505	6,523	1,666	34,911	95,604
Alcohol, Drug Abuse & Mental Hlth Admin	816	266	550	-	48,126	505	1,760	1,300	32,713	11,848
Health Care Financing Admin	-	-	-	-	49,076	-	-	-	-	49,076
Human Development Services	-	-	-	-	8,496	-	-	-	-	8,496
National Institutes of Health	4,896	4,837	59	-	10,338	-	-	-	-	10,338
Office of the Secretary	468	-	468	-	7,327	-	4,763	366	2,198	-
Social Security Administration	-	-	-	-	15,846	-	-	-	-	15,846
Dept of Housing & Urban Development	155	-	155	-	5,767	-	5,691	-	37	39
Department of the Interior, total	8,918	1,292	7,626	-	1,700	1,000	-	-	700	-
Geological Survey	8,762	1,292	7,470	-	-	-	-	-	-	-
National Park Service	150	-	150	-	1,700	1,000	-	-	700	-
Off of Surface Mining Reclamation & Enforcement	6	-	6	-	-	-	-	-	-	-
Department of Justice, total	200	200	-	-	8,893	150	200	350	3,149	5,044
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,449	50	50	-	1,149	200
Office of Justice Programs	200	200	-	-	7,394	100	150	350	2,000	4,794
Department of Labor, total	-	-	-	-	21,581	-	21,581	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,000	-	7,000	-	-	-
Employment Standards Administration	-	-	-	-	118	-	118	-	-	-
Employment and Training Admin	-	-	-	-	5,732	-	5,732	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	303	-	303	-	-	-

Continued on next page

Table C-69. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Occupational Safety & Health Admin.	-	-	-	-	4,503	-	4,503	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	1,413	-	1,413	-	-	-
Office of the Secretary	-	-	-	-	2,212	-	2,212	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	300	-	300	-	-	-
Department of State, total	-	-	-	-	1,277	-	25	64	5	1,183
Departmental funds	-	-	-	-	1,277	-	25	64	5	1,183
Department of Transportation, total	7,236	-	5,236	2,000	9,592	-	350	2,767	6,475	-
Coast Guard	1,096	-	1,096	-	458	-	-	-	458	-
Federal Highway Administration	4,190	-	2,190	2,000	-	-	-	-	-	-
Federal Railroad Administration	-	-	-	-	75	-	75	-	-	-
Nat'l Highway Traffic Safety Admin.	1,950	-	1,950	-	8,784	-	-	2,767	6,017	-
Office of the Secretary	-	-	-	-	100	-	100	-	-	-
Research & Special Programs Admin.	-	-	-	-	175	-	175	-	-	-
Department of the Treasury, total	7,177	6,103	1,074	-	4,073	-	2,647	-	-	1,426
Internal Revenue Service	7,177	6,103	1,074	-	4,073	-	2,647	-	-	1,426
Other agencies										
Advisory Comm on Intergov'tl Relations	-	-	-	-	1,130	-	565	565	-	-
Agency for Internat'l Development	297	-	297	-	10,422	-	2,345	976	1,038	6,063
Appalachian Regional Commission	-	-	-	-	767	-	-	-	-	767
Environmental Protection Agency	3,078	39	3,039	-	-	-	-	-	-	-
Federal Communications Commission	51	-	51	-	327	-	274	-	-	53
Office of Thrift Supervision 1/	-	-	-	-	4,051	-	4,051	-	-	-
Federal Trade Commission	-	-	-	-	379	-	379	-	-	-
International Trade Commission	-	-	-	-	8,671	-	8,671	-	-	-
National Aeronautics & Space Admin	53,318	26,662	25,927	729	2,450	-	-	-	-	2,450
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	4,274	242	4,032	-	8,016	125	4,400	374	1,041	2,076
Tennessee Valley Authority	-	-	-	-	161	-	161	-	-	-
US Arms Control & Disarmament Agency	535	-	136	399	235	-	-	97	-	138

n.e.c. = Not elsewhere classified.

1/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-70. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Total, all agencies	364,957	65,322	177,658	121,977	432,697	1,774	134,056	6,360	68,435	222,072
Departments										
Department of Agriculture, total	7,377	6,672	705	-	78,363	-	70,746	330	6,532	755
Agricultural Cooperative Service	-	-	-	-	2,779	-	2,779	-	-	-
Agricultural Research Service	783	78	705	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	25,906	-	20,865	-	5,041	-
Economic Research Service	-	-	-	-	43,888	-	42,123	132	878	755
Forest Service	4,519	4,519	-	-	5,790	-	4,979	198	613	-
Nat'l Agricultural Statistics Svc	2,075	2,075	-	-	-	-	-	-	-	-
Department of Commerce, total	13,365	4,294	5,781	3,290	3,284	-	2,342	659	-	283
Bureau of the Census	1,491	1,294	197	-	609	-	332	277	-	-
Economic Development Administration	-	-	-	-	1,200	-	1,200	-	-	-
Nat'l Institute of Standards & Tech	9,983	2,341	4,352	3,290	171	-	171	-	-	-
Nat'l Oceanic & Atmospheric Admin	1,818	659	1,159	-	1,304	-	639	382	-	283
Nat'l Telecomm & Information Admin	73	-	73	-	-	-	-	-	-	-
Department of Defense, total	248,306	13,516	121,030	113,760	1,720	-	1,032	-	688	-
Department of the Army	14,748	1,984	11,614	1,150	1,720	-	1,032	-	688	-
Department of the Navy	44,499	6,322	27,859	10,318	-	-	-	-	-	-
Department of the Air Force	25,126	3,960	17,489	3,677	-	-	-	-	-	-
Defense agencies	163,933	1,250	64,068	98,615	-	-	-	-	-	-
Department of Education	530	-	-	530	95,929	-	-	-	1,338	94,591
Department of Energy	4,622	-	4,622	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	6,366	5,402	964	-	158,488	591	5,119	1,768	44,770	106,240
Alcohol, Drug Abuse & Mental Hlth Admin	901	301	600	-	58,674	591	2,063	1,533	38,560	15,927
Health Care Financing Admin	-	-	-	-	50,000	-	-	-	-	50,000
Human Development Services	-	-	-	-	11,364	-	-	-	-	11,364
National Institutes of Health	5,165	5,101	64	-	10,902	-	-	-	-	10,902
Office of Ass't Secy for Health	-	-	-	-	4,800	-	-	-	4,800	-
Office of the Secretary	300	-	300	-	4,701	-	3,056	235	1,410	-
Social Security Administration	-	-	-	-	18,047	-	-	-	-	18,047
Dept of Housing & Urban Development	338	-	338	-	5,529	-	5,001	-	271	257
Department of the Interior, total	9,232	1,304	7,928	-	1,800	900	-	-	900	-
Geological Survey	9,052	1,304	7,748	-	-	-	-	-	-	-
National Park Service	100	-	100	-	1,800	900	-	-	900	-
Off of Surface Mining Reclamation & Enforcement	80	-	80	-	-	-	-	-	-	-
Department of Justice, total	200	200	-	-	10,264	150	200	300	4,000	5,614
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,200	50	50	-	800	300
Office of Justice Programs	200	200	-	-	9,014	100	150	300	3,200	5,264
Department of Labor, total	-	-	-	-	21,986	-	21,986	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,100	-	7,100	-	-	-
Employment Standards Administration	-	-	-	-	265	-	265	-	-	-
Employment and Training Admin	-	-	-	-	5,518	-	5,518	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	70	-	70	-	-	-

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Table C-70. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Occupational Safety & Health Admin .	-	-	-	-	4,125	-	4,125	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	2,429	-	2,429	-	-	-
Office of the Secretary	-	-	-	-	2,179	-	2,179	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	300	-	300	-	-	-
Department of State, total	-	-	-	-	1,190	-	25	64	5	1,096
Departmental funds	-	-	-	-	1,190	-	25	64	5	1,096
Department of Transportation, total ..	6,921	417	3,066	3,438	9,897	-	741	1,141	8,015	-
Coast Guard	1,515	-	1,515	-	838	-	-	-	838	-
Federal Highway Administration	2,968	417	1,551	1,000	421	-	421	-	-	-
Federal Railroad Administration	-	-	-	-	100	-	100	-	-	-
Nat'l Highway Traffic Safety Admin .	2,438	-	-	2,438	8,318	-	-	1,141	7,177	-
Office of the Secretary	-	-	-	-	100	-	100	-	-	-
Research & Special Programs Admin ..	-	-	-	-	120	-	120	-	-	-
Department of the Treasury, total	8,360	7,106	1,254	-	4,744	-	3,084	-	-	1,660
Internal Revenue Service	8,360	7,106	1,254	-	4,744	-	3,084	-	-	1,660
Other agencies										
Advisory Comm on Intergov'tl Relations	-	-	-	-	1,360	-	680	680	-	-
Agency for Internat'l Development	315	-	315	-	8,686	-	2,005	840	807	5,034
Appalachian Regional Commission	-	-	-	-	1,000	-	-	-	-	1,000
Environmental Protection Agency	3,998	35	3,963	-	42	-	42	-	-	-
Federal Communications Commission	70	-	70	-	400	-	360	-	-	40
Office of Thrift Supervision 1/.....	-	-	-	-	5,786	-	5,786	-	-	-
Federal Trade Commission	-	-	-	-	459	-	459	-	-	-
International Trade Commission	-	-	-	-	9,595	-	9,595	-	-	-
National Aeronautics & Space Admin ...	50,128	26,093	23,206	829	3,250	-	-	-	-	3,250
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	4,554	258	4,296	-	8,541	133	4,688	399	1,109	2,212
Tennessee Valley Authority	-	-	-	-	165	-	165	-	-	-
US Arms Control & Disarmament Agency .	250	-	120	130	219	-	-	179	-	40

n.e.c. = Not elsewhere classified.

1/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-71. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Total, all agencies	413,492	68,780	213,637	131,075	456,918	2,147	142,596	6,242	72,578	233,355
Departments										
Department of Agriculture, total	7,403	6,645	758	-	80,420	-	72,262	338	6,988	832
Agricultural Cooperative Service	-	-	-	-	2,811	-	2,811	-	-	-
Agricultural Research Service	842	84	758	-	-	-	-	-	-	-
Cooperative State Research Service	-	-	-	-	23,594	-	18,170	-	5,424	-
Economic Research Service	-	-	-	-	48,385	-	46,440	145	958	832
Forest Service	4,394	4,394	-	-	5,630	-	4,841	193	596	-
Nat'l Agricultural Statistics Svc	2,167	2,167	-	-	-	-	-	-	-	-
Department of Commerce, total	14,700	4,424	6,956	3,320	1,799	-	981	588	-	230
Bureau of the Census	1,491	1,294	197	-	609	-	332	277	-	-
Nat'l Institute of Standards & Tech	11,318	2,472	5,526	3,320	177	-	177	-	-	-
Nat'l Oceanic & Atmospheric Admin	1,816	658	1,158	-	1,013	-	472	311	-	230
Nat'l Telecomm & Information Admin	75	-	75	-	-	-	-	-	-	-
Department of Defense, total	281,507	13,719	145,764	122,024	1,778	-	1,186	-	592	-
Department of the Army	18,826	1,951	13,688	3,187	1,778	-	1,186	-	592	-
Department of the Navy	48,622	6,860	30,566	11,196	-	-	-	-	-	-
Department of the Air Force	29,006	4,061	21,174	3,771	-	-	-	-	-	-
Defense agencies	185,053	847	80,336	103,870	-	-	-	-	-	-
Department of Education	535	-	-	535	115,165	-	-	-	1,385	113,780
Department of Energy	4,646	-	4,646	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	6,565	5,549	1,016	-	148,216	646	5,312	1,841	47,529	92,888
Alcohol, Drug Abuse & Mental Hlth Admin	948	298	650	-	67,848	646	2,247	1,605	46,114	17,236
Health Care Financing Admin	-	-	-	-	36,000	-	-	-	-	36,000
Human Development Services	-	-	-	-	11,854	-	-	-	-	11,854
National Institutes of Health	5,316	5,251	65	-	11,221	-	-	-	-	11,221
Office of the Secretary	301	-	301	-	4,716	-	3,065	236	1,415	-
Social Security Administration	-	-	-	-	16,577	-	-	-	-	16,577
Dept of Housing & Urban Development	4,473	-	4,473	-	12,621	-	6,500	-	686	5,435
Department of the Interior, total	10,071	1,426	8,645	-	2,945	1,200	-	-	1,000	745
Bureau of Reclamation	-	-	-	-	45	-	-	-	-	45
Geological Survey	9,921	1,426	8,495	-	-	-	-	-	-	-
National Park Service	150	-	150	-	2,900	1,200	-	-	1,000	700
Department of Justice, total	200	200	-	-	10,404	150	200	450	4,754	4,850
Drug Enforcement Administration	-	-	-	-	50	-	-	-	-	50
Federal Prison System	-	-	-	-	1,200	50	50	-	800	300
Office of Justice Programs	200	200	-	-	9,154	100	150	450	3,954	4,500
Department of Labor, total	-	-	-	-	23,094	-	23,094	-	-	-
Bureau of Labor Statistics	-	-	-	-	7,200	-	7,200	-	-	-
Employment Standards Administration	-	-	-	-	221	-	221	-	-	-
Employment and Training Admin	-	-	-	-	6,402	-	6,402	-	-	-
Labor-Management Relations & Coop Prog	-	-	-	-	70	-	70	-	-	-

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Table C-71. Federal obligations for applied research in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	political science	Sociology	social sciences n.e.c.
Occupational Safety & Health Admin .	-	-	-	-	4,125	-	4,125	-	-	-
Office of Pension & Welfare Benefits	-	-	-	-	2,580	-	2,580	-	-	-
Office of the Secretary	-	-	-	-	2,181	-	2,181	-	-	-
Pension Benefit Guarantee Corporation	-	-	-	-	315	-	315	-	-	-
Department of State, total	-	-	-	-	1,206	-	25	64	5	1,112
Departmental funds	-	-	-	-	1,206	-	25	64	5	1,112
Department of Transportation, total ..	7,273	468	2,805	4,000	10,864	-	1,991	1,217	7,656	-
Coast Guard	1,328	-	1,328	-	-	-	-	-	-	-
Federal Highway Administration	3,345	468	1,477	1,400	468	-	468	-	-	-
Federal Railroad Administration	-	-	-	-	1,234	-	1,234	-	-	-
Nat'l Highway Traffic Safety Admin .	2,600	-	-	2,600	8,873	-	-	1,217	7,656	-
Office of the Secretary	-	-	-	-	189	-	189	-	-	-
Research & Special Programs Admin ..	-	-	-	-	100	-	100	-	-	-
Department of the Treasury, total	8,360	7,106	1,254	-	4,744	-	3,084	-	-	1,660
Internal Revenue Service	8,360	7,106	1,254	-	4,744	-	3,084	-	-	1,660
Other agencies										
Advisory Comm on Intergov'tl Relations	-	-	-	-	1,385	-	693	692	-	-
Agency for Internat'l Development	332	-	332	-	9,470	-	4,336	-	726	4,408
Appalachian Regional Commission	-	-	-	-	1,000	-	-	-	-	1,000
Environmental Protection Agency	5,792	38	5,754	-	9	-	9	-	-	-
Federal Communications Commission	150	-	150	-	108	-	108	-	-	-
Office of Thrift Supervision 1/.....	-	-	-	-	6,360	-	6,360	-	-	-
Federal Trade Commission	-	-	-	-	477	-	477	-	-	-
International Trade Commission	-	-	-	-	10,500	-	10,500	-	-	-
National Aeronautics & Space Admin ...	55,799	28,888	26,015	896	3,708	-	-	-	-	3,708
National Archives	25	25	-	-	-	-	-	-	-	-
National Science Foundation	5,161	292	4,869	-	9,680	151	5,313	452	1,257	2,507
Tennessee Valley Authority	-	-	-	-	165	-	165	-	-	-
US Arms Control & Disarmament Agency .	500	-	200	300	800	-	-	600	-	200

n.e.c. = Not elsewhere classified.

1/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-72. Federal obligations for development, by agency and performer: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	40,640,405	9,139,458	25,672,871	1,440,161	878,820	1,793,624	479,471	412,439	46,261	777,300
Departments										
Department of Agriculture, total	36,057	34,052	-	-	1,573	20	209	-	8	195
Agricultural Marketing Service 2/	294	294	-	-	-	-	-	-	-	-
Agricultural Research Service	31,411	29,426	-	-	1,573	-	209	-	8	195
Federal Grain Inspection Service	329	309	-	-	-	20	-	-	-	-
Forest Service	3,900	3,900	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	123	123	-	-	-	-	-	-	-	-
Department of Commerce, total	46,884	26,222	16,528	-	4,134	-	-	-	-	-
Bureau of the Census	1,951	1,951	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	9,989	9,912	57	-	20	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	34,057	13,472	16,471	-	4,114	-	-	-	-	-
Nat'l Telecomm & Information Admin	887	887	-	-	-	-	-	-	-	-
Department of Defense, total	33,920,763	7,935,729	23,556,950	243,979	348,692	590,219	122,654	374,983	790	746,767
Department of the Army	4,835,902	1,394,519	3,241,229	12,202	35,647	122,572	12,575	7,983	-	9,175
Department of the Navy	8,882,929	2,680,371	5,691,703	130,768	212,377	2,979	61,852	49,471	-	53,408
Department of the Air Force	14,429,988	2,406,895	11,123,235	2,640	17,693	33,516	3,870	215,933	-	626,206
Defense agencies	5,616,832	1,402,572	3,440,685	98,369	82,214	430,276	44,357	92,928	24	25,607
Test and Evaluation, Deputy Under Secretary Defense	140,740	51,122	48,546	-	761	876	-	6,298	766	32,371
Director, Operational Test and Evaluation	14,372	250	11,752	-	-	-	-	2,370	-	-
Department of Education	37,167	2,188	4,474	-	17,904	-	12,144	-	457	-
Department of Energy	2,760,931	106,986	500,830	1,193,946	16,712	888,699	17,294	35,160	537	767
Dept of Hlth & Human Services, total	814,403	148,663	37,454	2,236	412,761	2,597	188,537	740	16,867	4,548
Alcohol, Drug Abuse & Mental Hlth Admin	3,045	2,284	-	-	-	-	761	-	-	-
Human Development Services	93,193	2,331	1,140	-	13,114	-	65,777	-	10,831	-
National Institutes of Health	716,501	143,098	36,314	2,236	398,691	2,597	121,441	740	6,036	4,548
Office of Asst't Secy for Health	1,664	150	-	-	956	-	558	-	-	-
Dept of Housing & Urban Development	11,902	7,644	3,354	-	-	-	904	-	-	-
Department of the Interior, total	27,082	14,043	12,450	-	578	-	11	-	-	-
Bureau of Land Management	1,000	600	-	-	400	-	-	-	-	-
Bureau of Mines	5,439	1,852	3,587	-	-	-	-	-	-	-
Bureau of Reclamation	629	629	-	-	-	-	-	-	-	-
Geological Survey	12,914	4,242	8,483	-	178	-	11	-	-	-
Office of the Secretary	400	20	380	-	-	-	-	-	-	-
US Fish & Wildlife Service	6,700	6,700	-	-	-	-	-	-	-	-
Department of Justice, total	20,635	8,765	4,535	-	1,243	72	1,558	500	3,962	-
Drug Enforcement Administration	2,200	200	1,223	-	205	72	-	500	-	-
Federal Bureau of Investigation	7,676	7,676	-	-	-	-	-	-	-	-
Federal Prison System	3,000	280	-	-	100	-	-	-	2,620	-
Office of Justice Programs	7,759	609	3,312	-	938	-	1,558	-	1,342	-
Department of Labor, total	13,268	463	433	-	371	-	3,757	-	8,244	-
Employment and Training Admin	9,683	15	-	-	-	-	2,435	-	7,233	-

Continued on next page

Table C-72. Federal obligations for development, by agency and performer: fiscal year 1989--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Office of the Secretary	3,585	448	433	-	371	-	1,322	-	1,011	-
Department of Transportation, total	182,309	118,971	37,768	-	10,459	-	8,211	-	6,900	-
Coast Guard	13,330	9,650	3,680	-	-	-	-	-	-	-
Federal Aviation Administration	123,187	101,122	13,820	-	875	-	7,370	-	-	-
Federal Highway Administration	33,877	1,117	17,738	-	8,487	-	-	-	6,535	-
Federal Railroad Administration	1,475	728	136	-	-	-	611	-	-	-
Nat'l Highway Traffic Safety Admin	3,476	1,250	1,510	-	121	-	230	-	365	-
Office of the Secretary	4,218	3,187	864	-	167	-	-	-	-	-
Research & Special Programs Admin	1,347	1,327	20	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1,399	590	-	-	809	-	-	-	-	-
Department of the Treasury, total	9,263	741	8,522	-	-	-	-	-	-	-
Bureau of Engraving and Printing	293	293	-	-	-	-	-	-	-	-
Internal Revenue Service	288	207	81	-	-	-	-	-	-	-
Office of Protective Research	220	50	170	-	-	-	-	-	-	-
United States Customs Service	6,418	150	6,268	-	-	-	-	-	-	-
United States Mint	2,044	41	2,003	-	-	-	-	-	-	-
Department of Veterans Affairs	21,000	19,500	-	-	1,500	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	60,049	4,458	6,918	-	6,559	-	21,516	-	-	20,598
Consumer Product Safety Commission	848	428	315	-	105	-	-	-	-	-
Environmental Protection Agency	106,996	19,660	61,554	-	9,422	-	10,540	-	5,820	-
Library of Congress	6,402	6,402	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	2,514,666	658,770	1,420,786	-	46,537	310,757	69,659	1,056	2,676	4,425
National Archives	110	110	-	-	-	-	-	-	-	-
Tennessee Valley Authority	48,010	25,263	-	-	270	-	22,477	-	-	-
US Arms Control & Disarmament Agency	1,560	300	-	-	-	1,260	-	-	-	-
United States Information Agency	100	100	-	-	-	-	-	-	-	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-73. Federal obligations for development, by agency and performer: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other non-profit institutions	FFRDCs admin by non-profit institutions	State and local govts	
Total, all agencies	40,637,277	9,756,318	25,691,984	1,534,328	875,045	1,677,386	498,469	323,018	47,528	233,201
Departments										
Department of Agriculture, total	38,316	36,103	-	-	1,818	-	218	-	8	169
Agricultural Marketing Service 2/	308	308	-	-	-	-	-	-	-	-
Agricultural Research Service	32,815	30,776	-	-	1,644	-	218	-	8	169
Federal Grain Inspection Service	478	304	-	-	174	-	-	-	-	-
Forest Service	4,600	4,600	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	115	115	-	-	-	-	-	-	-	-
Department of Commerce, total	56,527	27,649	23,535	-	4,678	-	665	-	-	-
Bureau of the Census	2,063	2,063	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	16,838	10,108	5,379	-	686	-	665	-	-	-
Nat'l Oceanic & Atmospheric Admin	36,679	14,531	18,156	-	3,992	-	-	-	-	-
Nat'l Telecomm & Information Admin	947	947	-	-	-	-	-	-	-	-
Department of Defense, total	32,664,236	8,232,285	22,740,180	238,368	321,289	550,583	86,378	285,884	121	209,148
Department of the Army	4,873,339	1,576,048	3,114,064	10,292	31,651	116,499	14,168	4,709	-	5,908
Department of the Navy	8,810,227	2,678,528	5,674,884	121,936	159,333	2,942	30,669	65,592	-	76,343
Department of the Air Force	13,012,957	2,600,991	10,248,485	2,618	30,271	23,900	200	103,510	-	2,982
Defense agencies	5,713,092	1,322,848	3,561,934	103,522	95,737	407,242	41,341	103,178	121	77,169
Test and Evaluation, Deputy Under Secretary Defense	184,166	53,570	79,158	-	4,297	-	-	395	-	46,746
Director, Operational Test and Evaluation	70,455	300	61,655	-	-	-	-	8,500	-	-
Department of Education	47,895	2,298	4,314	-	26,441	-	14,420	-	422	-
Department of Energy	3,057,283	172,049	658,185	1,292,772	12,997	864,766	18,886	35,222	717	1,689
Dept of Hlth & Human Services, total	880,359	173,720	43,507	2,588	414,098	3,031	217,293	850	19,986	5,286
Alcohol, Drug Abuse & Mental Hlth Admin	4,279	3,209	-	-	-	-	1,070	-	-	-
Human Development Services	107,899	2,980	1,255	-	15,894	-	74,808	-	12,962	-
National Institutes of Health	767,000	167,381	42,252	2,588	397,342	3,031	141,246	850	7,024	5,286
Office of Asst't Secy for Health	1,181	150	-	-	862	-	169	-	-	-
Dept of Housing & Urban Development	13,444	8,480	3,220	-	102	-	1,642	-	-	-
Department of the Interior, total	33,946	18,501	15,005	-	440	-	-	-	-	-
Bureau of Land Management	700	450	-	-	250	-	-	-	-	-
Bureau of Mines	9,803	4,111	5,692	-	-	-	-	-	-	-
Bureau of Reclamation	488	488	-	-	-	-	-	-	-	-
Geological Survey	15,139	6,126	8,838	-	175	-	-	-	-	-
Office of the Secretary	500	25	475	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	16	1	-	-	15	-	-	-	-	-
US Fish & Wildlife Service	7,300	7,300	-	-	-	-	-	-	-	-
Department of Justice, total	20,581	7,556	7,378	600	870	-	1,209	-	2,968	-
Drug Enforcement Administration	4,000	300	2,850	600	250	-	-	-	-	-
Federal Bureau of Investigation	5,822	5,822	-	-	-	-	-	-	-	-
Federal Prison System	2,712	184	28	-	100	-	-	-	2,400	-
Office of Justice Programs	8,047	1,250	4,500	-	520	-	1,209	-	568	-
Department of Labor, total	14,225	533	864	-	281	-	4,098	-	8,449	-
Employment and Training Admin	10,860	88	-	-	-	-	2,907	-	7,865	-

Continued on next page

Table C-73. Federal obligations for development, by agency and performer: fiscal year 1990 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Office of the Secretary	3,200	380	764	-	281	-	1,191	-	584	-
Pension Benefit Guarantee Corporation	165	65	100	-	-	-	-	-	-	-
Department of Transportation, total	248,692	143,746	61,750	-	18,128	-	18,044	-	7,024	-
Coast Guard	15,411	11,150	4,261	-	-	-	-	-	-	-
Federal Aviation Administration	186,538	122,785	38,091	-	8,633	-	17,029	-	-	-
Federal Highway Administration	31,493	540	15,884	-	8,460	-	-	-	6,609	-
Federal Railroad Administration	2,500	1,190	570	-	-	-	740	-	-	-
Nat'l Highway Traffic Safety Admin	3,815	1,500	1,450	-	175	-	275	-	415	-
Office of the Secretary	5,294	3,563	1,469	-	262	-	-	-	-	-
Research & Special Programs Admin	2,046	2,021	25	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1,595	997	-	-	598	-	-	-	-	-
Department of the Treasury, total	9,314	2,297	7,017	-	-	-	-	-	-	-
Bureau of Engraving and Printing	1,937	1,937	-	-	-	-	-	-	-	-
Internal Revenue Service	336	217	119	-	-	-	-	-	-	-
United States Customs Service	5,800	100	5,700	-	-	-	-	-	-	-
United States Mint	1,241	43	1,198	-	-	-	-	-	-	-
Department of Veterans Affairs	22,100	20,600	-	-	1,500	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	44,670	2,624	7,717	-	9,564	-	12,430	-	-	12,335
Consumer Product Safety Commission	688	644	20	-	24	-	-	-	-	-
Environmental Protection Agency	100,668	20,685	55,845	-	9,640	-	9,543	-	4,955	-
Library of Congress	6,574	6,574	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	3,340,200	861,772	2,063,447	-	52,905	259,006	94,560	1,062	2,874	4,574
National Archives	110	110	-	-	-	-	-	-	-	-
Tennessee Valley Authority	37,449	18,092	-	-	270	-	19,083	-	4	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-74. Federal obligations for development, by agency and performer: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	42,887,553	9,529,704	28,084,129	1,557,210	834,756	1,790,587	504,804	344,817	58,768	182,778
Departments										
Department of Agriculture, total	40,701	38,322	-	-	1,967	-	235	-	8	169
Agricultural Marketing Service 2/	320	320	-	-	-	-	-	-	-	-
Agricultural Research Service	35,269	33,090	-	-	1,767	-	235	-	8	169
Federal Grain Inspection Service	539	339	-	-	200	-	-	-	-	-
Forest Service	4,500	4,500	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Development	73	73	-	-	-	-	-	-	-	-
Department of Commerce, total	63,642	33,659	28,072	-	1,205	-	706	-	-	-
Bureau of the Census	1,937	1,937	-	-	-	-	-	-	-	-
Nat'l Institute of Standards & Tech	22,015	14,129	6,453	-	727	-	706	-	-	-
Nat'l Oceanic & Atmospheric Admin	38,750	16,653	21,619	-	478	-	-	-	-	-
Nat'l Telecomm & Information Admin	940	940	-	-	-	-	-	-	-	-
Department of Defense, total	33,448,502	7,650,587	24,185,826	262,412	280,231	567,374	47,846	303,601	35	150,590
Department of the Army	5,432,629	1,689,385	3,527,149	7,489	28,881	153,907	15,992	4,002	-	5,824
Department of the Navy	8,493,948	2,636,872	5,413,229	143,607	152,712	2,876	11,860	68,774	-	64,018
Department of the Air Force	12,801,397	1,326,860	11,291,494	2,600	32,783	31,144	200	114,816	-	1,500
Defense agencies	6,318,821	1,909,867	3,705,637	108,716	65,128	374,447	19,794	101,116	35	34,081
Test and Evaluation, Deputy Under Secretary Defense	322,618	87,128	181,003	-	727	5,000	-	3,593	-	45,167
Director, Operational Test and Evaluation	79,089	475	67,314	-	-	-	-	11,300	-	-
Department of Education	32,799	2,179	5,994	-	14,530	-	9,329	358	409	-
Department of Energy	3,265,016	206,726	803,877	1,291,363	13,269	902,183	6,341	38,983	319	1,955
Dept of Hlth & Human Services, total	910,853	177,004	44,033	2,635	433,040	3,087	221,181	866	23,623	5,384
Alcohol, Drug Abuse & Mental Hlth Admin	4,823	3,617	-	-	-	-	1,206	-	-	-
Human Development Services	112,184	2,762	1,000	-	16,033	-	75,919	-	16,470	-
National Institutes of Health	792,600	170,475	43,033	2,635	416,110	3,087	143,857	866	7,153	5,384
Office of Asst't Secy for Health	1,246	150	-	-	897	-	199	-	-	-
Dept of Housing & Urban Development	30,697	9,574	8,922	-	202	-	11,999	-	-	-
Department of the Interior, total	36,928	22,688	13,775	-	415	-	-	-	50	-
Bureau of Land Management	700	450	-	-	200	-	-	-	50	-
Bureau of Mines	6,947	6,947	-	-	-	-	-	-	-	-
Bureau of Reclamation	699	699	-	-	-	-	-	-	-	-
Geological Survey	17,666	4,356	13,110	-	200	-	-	-	-	-
Office of the Secretary	700	35	665	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	16	1	-	-	15	-	-	-	-	-
US Fish & Wildlife Service	10,200	10,200	-	-	-	-	-	-	-	-
Department of Justice, total	23,162	8,751	7,838	800	450	-	1,943	-	3,380	-
Drug Enforcement Administration	4,500	400	3,100	800	200	-	-	-	-	-
Federal Bureau of Investigation	6,601	6,601	-	-	-	-	-	-	-	-
Federal Prison System	2,788	250	38	-	100	-	-	-	2,400	-
Office of Justice Programs	9,273	1,500	4,700	-	150	-	1,943	-	980	-
Department of Labor, total	16,394	796	614	-	383	-	4,929	-	9,672	-
Employment and Training Admin	12,524	96	-	-	-	-	3,588	-	8,840	-

Continued on next page

Table C-74. Federal obligations for development, by agency and performer: fiscal year 1991 (est.)--Continued

[Dollars in thousands]

Agency and subdivision	Total	Intramural 1/	Extramural							
			United States and territories							Foreign
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Office of the Secretary	3,700	630	514	-	383	-	1,341	-	832	-
Pension Benefit Guarantee Corporation	170	70	100	-	-	-	-	-	-	-
Department of Transportation, total	260,935	130,793	80,636	-	13,011	600	22,988	-	12,907	-
Coast Guard	16,930	12,260	4,670	-	-	-	-	-	-	-
Federal Aviation Administration	173,721	105,946	45,337	-	100	600	21,738	-	-	-
Federal Highway Administration	54,077	2,256	27,453	-	11,911	-	-	-	12,457	-
Federal Railroad Administration	3,100	1,750	400	-	-	-	950	-	-	-
Nat'l Highway Traffic Safety Admin	4,191	1,641	1,600	-	200	-	300	-	450	-
Office of the Secretary	5,636	4,500	936	-	200	-	-	-	-	-
Research & Special Programs Admin	1,680	1,440	240	-	-	-	-	-	-	-
Urban Mass Transportation Admin	1,500	1,000	-	-	600	-	-	-	-	-
Department of the Treasury, total	9,105	1,793	7,312	-	-	-	-	-	-	-
Bureau of Engraving and Printing	1,426	1,426	-	-	-	-	-	-	-	-
Internal Revenue Service	336	217	119	-	-	-	-	-	-	-
United States Customs Service	7,343	150	7,193	-	-	-	-	-	-	-
Department of Veterans Affairs	21,200	19,700	-	-	1,500	-	-	-	-	-
Other agencies										
Agency for Internat'l Development	52,687	1,333	-	-	8,186	-	22,988	-	-	20,180
Consumer Product Safety Commission	371	371	-	-	-	-	-	-	-	-
Environmental Protection Agency	79,742	18,750	38,680	-	8,711	-	8,352	-	5,249	-
Library of Congress	7,736	7,736	-	-	-	-	-	-	-	-
National Aeronautics & Space Admin	4,548,925	1,182,720	2,858,550	-	57,197	317,343	124,490	1,009	3,116	4,500
National Archives	80	80	-	-	-	-	-	-	-	-
Tennessee Valley Authority	38,078	16,142	-	-	459	-	21,477	-	-	-

1/ Intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

2/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-75. Federal funds for R&D plant, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	Obligations			Outlays		
	1989	Estimates		1989	Estimates	
		1990	1991		1990	1991
Total, all agencies	2,165,121	2,966,616	2,760,827	2,026,058	2,559,084	2,665,816
Departments						
Department of Agriculture, total	89,178	123,630	76,200	92,327	155,985	130,075
Agricultural Research Service	55,178	62,725	70,700	51,743	69,000	60,699
Animal & Plant Health Inspection Svc	300	6,130	4,000	300	6,130	4,000
Cooperative State Research Service	32,150	50,375	-	38,584	78,455	61,376
Forest Service	1,550	4,400	1,500	1,700	2,400	4,000
Department of Commerce, total	9,122	15,890	16,599	9,135	16,266	16,300
Economic Development Administration	-	-	-	200	800	-
National Institute of Standards & Technology	8,639	10,107	13,016	8,452	9,683	12,717
National Oceanic & Atmospheric Administration	483	5,783	3,583	483	5,783	3,583
Department of Defense, total	499,275	615,238	461,695	415,629	518,922	469,986
Department of the Army	45,115	58,910	45,141	39,687	42,097	30,852
Department of the Navy	89,571	104,698	91,572	84,478	86,982	90,826
Department of the Air Force	250,182	376,060	275,217	199,697	299,618	274,792
Defense Agencies	114,407	75,570	49,765	91,767	90,225	73,516
Department of Education	1,860	9,300	1,800	2,310	4,920	2,336
Department of Energy	872,986	1,043,868	1,094,353	838,338	1,059,909	1,145,300
Department of Health and Human Services, total	78,563	130,176	97,570	56,000	75,400	66,000
Food & Drug Administration	23,000	500	7,500	2,000	3,000	15,000
National Institutes of Health	55,563	129,676	90,070	54,000	72,400	51,000
Department of the Interior, total	10,753	11,328	4,275	6,843	7,772	3,365
Bureau of Mines	2,575	493	600	2,075	500	493
Geological Survey	1,278	1,335	1,775	1,368	1,272	1,772
United States Fish and Wildlife Service	6,900	9,500	1,900	3,400	6,000	1,100
Department of Transportation, total	15,540	19,311	22,298	12,884	14,369	17,336
Federal Aviation Administration	15,540	18,561	20,798	12,584	14,269	16,436
Federal Railroad Administration	-	750	1,500	300	100	900
Department of the Treasury, total	125	125	125	125	125	125
Office of Protective Research	25	25	25	25	25	25
United States Customs Service	100	100	100	100	100	100
Department of Veterans Affairs	11,000	7,800	5,400	1,500	5,300	10,400
Other agencies						
General Services Administration	-	12,984	-	-	3,895	7,790
National Aeronautics and Space Administration	519,527	852,503	822,385	531,272	627,936	719,653
National Science Foundation	53,581	119,384	154,007	56,700	63,700	74,900
Smithsonian Institution	3,424	4,769	4,020	2,808	4,275	2,150
Tennessee Valley Authority	187	310	100	187	310	100

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

NOTE: Because of rounding, detail may not add to totals.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-76. Federal obligations for R&D plant, by agency and performer of the research and development the plant supports: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Federal intramural	Extramural							
			United States and territories							Foreign
			Industrial Firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs Admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	2,165,121	329,516	900,367	212,261	204,856	489,913	14,228	8,400	1,386	4,194
Departments										
Department of Agriculture, total	89,178	58,080	-	-	31,098	-	-	-	-	-
Agricultural Research Service	55,178	55,178	-	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	300	300	-	-	-	-	-	-	-	-
Cooperative State Research Service	32,150	1,052	-	-	31,098	-	-	-	-	-
Forest Service	1,550	1,550	-	-	-	-	-	-	-	-
Department of Commerce, total	9,122	5,536	3,573	-	13	-	-	-	-	-
Nat'l Institute of Standards & Tech	8,639	5,053	3,573	-	13	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	483	483	-	-	-	-	-	-	-	-
Department of Defense, total	499,275	171,524	294,361	7,628	-	25,762	-	-	-	-
Department of the Army	45,115	45,115	-	-	-	-	-	-	-	-
Department of the Navy	89,571	89,571	-	-	-	-	-	-	-	-
Department of the Air Force	250,182	36,838	188,454	2,928	-	21,962	-	-	-	-
Defense agencies	114,407	-	105,907	4,700	-	3,800	-	-	-	-
Department of Education	1,860	13	-	-	1,847	-	-	-	-	-
Department of Energy	872,986	2,206	82,556	204,633	128,624	437,368	9,199	8,400	-	-
Dept of Hlth & Human Services, total	78,563	49,688	444	-	22,016	-	5,029	-	1,386	-
Food & Drug Administration	23,000	23,000	-	-	-	-	-	-	-	-
National Institutes of Health	55,563	26,688	444	-	22,016	-	5,029	-	1,386	-
Department of the Interior, total	10,753	6,900	3,853	-	-	-	-	-	-	-
Bureau of Mines	2,575	-	2,575	-	-	-	-	-	-	-
Geological Survey	1,278	-	1,278	-	-	-	-	-	-	-
US Fish & Wildlife Service	6,900	6,900	-	-	-	-	-	-	-	-
Department of Transportation, total	15,540	15,540	-	-	-	-	-	-	-	-
Federal Aviation Administration	15,540	15,540	-	-	-	-	-	-	-	-
Department of the Treasury, total	125	125	-	-	-	-	-	-	-	-
Office of Protective Research	25	25	-	-	-	-	-	-	-	-
United States Customs Service	100	100	-	-	-	-	-	-	-	-
Department of Veterans Affairs	11,000	11,000	-	-	-	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	519,527	1,359	502,945	-	-	11,029	-	-	-	4,194
National Science Foundation	53,581	3,934	12,635	-	21,258	15,754	-	-	-	-
Smithsonian Institution	3,424	3,424	-	-	-	-	-	-	-	-
Tennessee Valley Authority	187	187	-	-	-	-	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-77. Federal obligations for R&D plant, by agency and performer of the research and development the plant supports: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Federal intramural	Extramural							
			United States and territories							Foreign
			Industrial Firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs Admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	2,966,616	448,357	1,250,349	235,498	167,022	711,393	141,027	11,359	-	1,611
Departments										
Department of Agriculture, total	123,630	75,218	-	-	48,412	-	-	-	-	-
Agricultural Research Service	62,725	62,725	-	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	6,130	6,130	-	-	-	-	-	-	-	-
Cooperative State Research Service	50,375	1,963	-	-	48,412	-	-	-	-	-
Forest Service	4,400	4,400	-	-	-	-	-	-	-	-
Department of Commerce, total	15,890	10,782	5,095	-	13	-	-	-	-	-
Nat'l Institute of Standards & Tech	10,107	4,999	5,095	-	13	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	5,783	5,783	-	-	-	-	-	-	-	-
Department of Defense, total	615,238	181,136	332,102	20,300	-	81,700	-	-	-	-
Department of the Army	58,910	58,910	-	-	-	-	-	-	-	-
Department of the Navy	104,698	104,698	-	-	-	-	-	-	-	-
Department of the Air Force	376,060	17,528	266,532	10,300	-	81,700	-	-	-	-
Defense agencies	75,570	-	65,570	10,000	-	-	-	-	-	-
Department of Education	9,300	66	-	-	9,234	-	-	-	-	-
Department of Energy	1,043,868	2,657	82,611	215,198	51,290	541,695	139,058	11,359	-	-
Dept of Hlth & Human Services, total	130,176	130,176	-	-	-	-	-	-	-	-
Food & Drug Administration	500	500	-	-	-	-	-	-	-	-
National Institutes of Health	129,676	129,676	-	-	-	-	-	-	-	-
Department of the Interior, total	11,328	9,500	1,828	-	-	-	-	-	-	-
Bureau of Mines	493	-	493	-	-	-	-	-	-	-
Geological Survey	1,335	-	1,335	-	-	-	-	-	-	-
US Fish & Wildlife Service	9,500	9,500	-	-	-	-	-	-	-	-
Department of Transportation, total	19,311	19,311	-	-	-	-	-	-	-	-
Federal Aviation Administration	18,561	18,561	-	-	-	-	-	-	-	-
Federal Railroad Administration	750	750	-	-	-	-	-	-	-	-
Department of the Treasury, total	125	125	-	-	-	-	-	-	-	-
Office of Protective Research	25	25	-	-	-	-	-	-	-	-
United States Customs Service	100	100	-	-	-	-	-	-	-	-
Department of Veterans Affairs	7,800	7,800	-	-	-	-	-	-	-	-
Other agencies										
General Services Administration	12,984	-	-	-	12,984	-	-	-	-	-
National Aeronautics & Space Admin	852,503	2,178	812,352	-	-	36,362	-	-	-	1,611
National Science Foundation	119,384	4,329	16,361	-	45,089	51,636	1,969	-	-	-
Smithsonian Institution	4,769	4,769	-	-	-	-	-	-	-	-
Tennessee Valley Authority	310	310	-	-	-	-	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-78. Federal obligations for R&D plant, by agency and performer of the research and development the plant supports: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Federal intramural	Extramural							
			United States and territories							Foreign
			Industrial Firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs Admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts	
Total, all agencies	2,760,827	383,266	1,034,389	243,607	132,677	745,797	203,866	17,225	-	-
Departments										
Department of Agriculture, total	76,200	76,200	-	-	-	-	-	-	-	-
Agricultural Research Service	70,700	70,700	-	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	4,000	4,000	-	-	-	-	-	-	-	-
Forest Service	1,500	1,500	-	-	-	-	-	-	-	-
Department of Commerce, total	16,599	11,617	4,969	-	13	-	-	-	-	-
Nat'l Institute of Standards & Tech	13,016	8,034	4,969	-	13	-	-	-	-	-
Nat'l Oceanic & Atmospheric Admin	3,583	3,583	-	-	-	-	-	-	-	-
Department of Defense, total	461,695	154,430	242,965	12,600	-	51,700	-	-	-	-
Department of the Army	45,141	45,141	-	-	-	-	-	-	-	-
Department of the Navy	91,572	91,572	-	-	-	-	-	-	-	-
Department of the Air Force	275,217	17,717	195,500	10,300	-	51,700	-	-	-	-
Defense agencies	49,765	-	47,465	2,300	-	-	-	-	-	-
Department of Education	1,800	-	-	-	1,800	-	-	-	-	-
Department of Energy	1,094,353	1,137	59,547	231,007	29,096	554,475	201,866	17,225	-	-
Dept of Hlth & Human Services, total	97,570	97,570	-	-	-	-	-	-	-	-
Food & Drug Administration	7,500	7,500	-	-	-	-	-	-	-	-
National Institutes of Health	90,070	90,070	-	-	-	-	-	-	-	-
Department of the Interior, total	4,275	1,900	2,375	-	-	-	-	-	-	-
Bureau of Mines	600	-	600	-	-	-	-	-	-	-
Geological Survey	1,775	-	1,775	-	-	-	-	-	-	-
US Fish & Wildlife Service	1,900	1,900	-	-	-	-	-	-	-	-
Department of Transportation, total	22,298	22,298	-	-	-	-	-	-	-	-
Federal Aviation Administration	20,798	20,798	-	-	-	-	-	-	-	-
Federal Railroad Administration	1,500	1,500	-	-	-	-	-	-	-	-
Department of the Treasury, total	125	125	-	-	-	-	-	-	-	-
Office of Protective Research	25	25	-	-	-	-	-	-	-	-
United States Customs Service	100	100	-	-	-	-	-	-	-	-
Department of Veterans Affairs	5,400	5,400	-	-	-	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	822,385	2,169	704,803	-	-	115,413	-	-	-	-
National Science Foundation	154,007	6,300	19,730	-	101,768	24,209	2,000	-	-	-
Smithsonian Institution	4,020	4,020	-	-	-	-	-	-	-	-
Tennessee Valley Authority	100	100	-	-	-	-	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-79. Federal obligations for research performed at universities and colleges, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of science/engineering	1989	Estimates	
		1990	1991
Total, all fields	7,472,527	7,546,939	8,032,601
Life sciences, total	4,395,848	4,428,111	4,681,860
Biological (excluding environmental)	2,334,373	2,366,420	2,521,212
Environmental biology	141,548	114,124	118,832
Agricultural	152,052	162,452	181,639
Medical	1,645,894	1,660,822	1,729,974
Life sciences, n.e.c.	121,981	124,293	130,203
Psychology, total	218,068	236,096	254,765
Biological aspects	78,186	91,368	101,098
Social aspects	51,790	58,332	62,491
Psychological sciences, n.e.c.	88,092	86,396	91,176
Physical sciences, total	929,635	960,164	1,035,326
Astronomy	78,398	86,420	94,176
Chemistry	297,704	298,023	315,210
Physics	485,699	503,780	545,629
Physical sciences, n.e.c.	67,834	71,941	80,311
Environmental sciences, total	460,488	474,936	510,825
Atmospheric	122,416	133,903	139,797
Geological	135,426	129,938	139,017
Oceanography	176,935	181,921	200,191
Environmental sciences, n.e.c.	25,711	29,174	31,820
Mathematics & computer sciences, total	344,809	354,377	359,465
Mathematics	115,208	118,678	119,007
Computer sciences	158,790	160,224	164,318
Mathematics & computer sciences, n.e.c.	70,811	75,475	76,140
Engineering, total	749,156	720,978	805,566
Aeronautical	71,724	73,618	78,993
Astronautical	19,790	19,509	20,874
Chemical	41,902	43,097	48,112
Civil	46,290	46,492	51,732
Electrical	151,536	152,417	167,146
Mechanical	87,536	87,173	95,946
Metallurgy & materials	194,090	170,600	213,015
Engineering, n.e.c.	136,288	128,072	129,748
Social sciences, total	155,254	166,020	169,313
Anthropology	8,031	8,424	9,399
Economics	45,585	47,284	43,217
Political science	5,397	5,768	6,327
Sociology	43,423	53,843	54,453
Social sciences, n.e.c.	52,818	50,701	55,917
Other sciences, n.e.c.	219,269	206,257	215,481

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal years 1989, 1990 and 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-80. Federal obligations for research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	7,472,527	4,395,848	218,068	929,635	460,488	344,809	749,156	155,254	219,269
Departments									
Department of Agriculture, total	326,227	263,230	-	11,809	2,154	497	13,850	34,687	-
Agricultural Cooperative Service	223	-	-	-	-	-	-	223	-
Agricultural Marketing Service 1/	37	37	-	-	-	-	-	-	-
Agricultural Research Service	24,651	24,651	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	517	517	-	-	-	-	-	-	-
Cooperative State Research Service	283,631	224,667	-	11,809	1,012	-	13,850	32,293	-
Economic Research Service	1,689	-	-	-	-	-	-	1,689	-
Federal Grain Inspection Service	229	229	-	-	-	-	-	-	-
Forest Service	13,460	11,615	-	-	1,142	221	-	482	-
Human Nutrition Information Service	1,344	1,344	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	276	-	-	-	-	276	-	-	-
Off of Internat'l Cooperation & Dev	170	170	-	-	-	-	-	-	-
Department of Defense, total	840,013	90,963	26,834	96,330	114,235	170,381	316,627	64	24,579
Department of the Army	87,446	19,642	4,830	14,510	5,500	6,864	35,607	64	429
Department of the Navy	213,473	22,024	13,043	31,075	64,467	20,975	61,791	-	98
Department of the Air Force	165,725	10,267	7,755	35,283	12,058	15,234	85,128	-	-
Defense agencies	373,369	39,030	1,206	15,462	32,210	127,308	134,101	-	24,052
Department of Energy	437,020	52,597	-	265,702	27,736	18,557	67,212	-	5,216
Dept of Hlth & Human Services, total	4,228,426	3,751,584	176,285	79,941	-	4,715	34,963	84,284	96,654
Alcohol, Drug Abuse & Mental Hlth Admin	408,430	260,523	104,502	1,634	-	415	-	38,624	2,732
Centers for Disease Control	22,129	22,129	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	11,277	-	-	-	-	-	-	11,277	-
Health Resources and Services Administration	5,039	5,039	-	-	-	-	-	-	-
Human Development Services	2,408	-	-	-	-	-	-	2,408	-
National Institutes of Health	3,758,220	3,458,771	71,783	78,307	-	4,300	34,963	16,174	93,922
Office of Asst't Secy for Health	8,691	-	-	-	-	-	-	8,691	-
Office of the Secretary	3,458	-	-	-	-	-	-	3,458	-
Social Security Administration	3,652	-	-	-	-	-	-	3,652	-
Other agencies									
National Aeronautics & Space Admin	387,128	24,905	3,177	125,428	81,518	26,208	111,421	65	14,406
National Science Foundation	1,253,713	212,569	11,772	350,425	234,845	124,451	205,083	36,154	78,414

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-81. Federal obligations for research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	7,546,939	4,428,111	236,096	960,164	474,936	354,377	720,978	166,020	206,257
Departments									
Department of Agriculture, total	343,688	279,534	-	12,140	2,256	461	14,560	34,737	-
Agricultural Research Service	25,753	25,753	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	429	429	-	-	-	-	-	-	-
Cooperative State Research Service	300,164	238,773	-	12,140	1,027	-	14,560	33,664	-
Economic Research Service	554	-	-	-	-	-	-	554	-
Federal Grain Inspection Service	325	325	-	-	-	-	-	-	-
Forest Service	14,500	12,514	-	-	1,229	238	-	519	-
Human Nutrition Information Service	1,531	1,531	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	223	-	-	-	-	223	-	-	-
Off of Internat'l Cooperation & Dev	209	209	-	-	-	-	-	-	-
Department of Defense, total	727,637	57,506	25,500	91,655	101,982	169,707	275,863	47	5,377
Department of the Army	83,507	19,358	3,517	13,645	5,289	7,623	33,891	47	137
Department of the Navy	218,373	23,189	13,130	32,088	66,866	21,368	61,632	-	100
Department of the Air Force	158,214	9,861	7,391	33,845	10,919	15,475	80,723	-	-
Defense agencies	267,543	5,098	1,462	12,077	18,908	125,241	99,617	-	5,140
Department of Energy	428,391	53,377	-	265,503	31,464	18,967	53,294	-	5,786
Dept of Hlth & Human Services, total	4,289,941	3,786,167	194,627	80,015	-	4,781	34,853	93,155	96,343
Alcohol, Drug Abuse & Mental Hlth Admin	478,541	305,295	123,071	1,951	-	499	-	44,993	2,732
Centers for Disease Control	23,235	23,235	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	7,954	-	-	-	-	-	-	7,954	-
Health Resources and Services Administration	5,038	5,038	-	-	-	-	-	-	-
Human Development Services	3,505	-	-	-	-	-	-	3,505	-
National Institutes of Health	3,745,958	3,447,477	71,556	78,064	-	4,282	34,853	16,115	93,611
Office of Asst't Secy for Health	18,008	-	-	-	-	-	-	18,008	-
Office of the Secretary	1,000	-	-	-	-	-	-	1,000	-
Social Security Administration	1,580	-	-	-	-	-	-	1,580	-
Other agencies									
National Aeronautics & Space Admin	440,095	28,312	3,612	142,589	92,671	29,794	126,665	74	16,378
National Science Foundation	1,317,187	223,215	12,357	368,262	246,563	130,667	215,743	38,007	82,373

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-82. Federal obligations for research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	8,032,601	4,681,860	254,765	1,035,326	510,82[illegible]	359,46[illegible]	805,566	169,313	215,481
Departments									
Department of Agriculture, total	361,509	304,454	-	11,136	2,351	485	12,138	30,945	-
Agricultural Research Service	27,678	27,678	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	346	346	-	-	-	-	-	-	-
Cooperative State Research Service	313,999	259,912	-	11,136	995	-	12,138	29,818	-
Economic Research Service	554	-	-	-	-	-	-	554	-
Federal Grain Inspection Service	194	194	-	-	-	-	-	-	-
Forest Service	16,000	13,809	-	-	1,356	262	-	573	-
Human Nutrition Information Service	2,305	2,305	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	223	-	-	-	-	223	-	-	-
Off of Internat'l Cooperation & Dev	210	210	-	-	-	-	-	-	-
Department of Defense, total	788,903	62,330	27,176	100,153	107,042	164,447	326,912	49	794
Department of the Army	84,972	20,425	3,345	13,738	5,249	7,741	34,216	49	209
Department of the Navy	242,106	24,563	14,141	34,406	71,148	22,687	75,060	-	101
Department of the Air Force	171,380	10,773	8,218	38,096	12,007	16,434	85,852	-	-
Defense agencies	290,445	6,569	1,472	13,913	18,638	117,585	131,784	-	484
Department of Energy	415,781	52,704	-	273,056	24,581	10,692	50,967	-	3,781
Dept of Hlth & Human Services, total	4,513,142	3,981,297	209,820	84,158	-	5,014	36,500	95,589	100,764
Alcohol, Drug Abuse & Mental Hlth Admin	529,530	339,430	134,884	2,407	-	529	-	49,548	2,732
Centers for Disease Control	21,397	21,397	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	8,640	-	-	-	-	-	-	8,640	-
Health Resources and Services Administration	5,038	5,038	-	-	-	-	-	-	-
Human Development Services	4,253	-	-	-	-	-	-	4,253	-
National Institutes of Health	3,922,890	3,610,310	74,936	81,751	-	4,485	36,500	16,876	98,032
Office of Asst't Secy for Health	13,430	-	-	-	-	-	-	13,430	-
Office of the Secretary	1,000	-	-	-	-	-	-	1,000	-
Social Security Administration	1,842	-	-	-	-	-	-	1,842	-
Other agencies									
National Aeronautics & Space Admin	475,803	30,610	3,905	154,158	100,190	32,211	136,943	80	17,706
National Science Foundation	1,477,463	250,465	13,864	412,665	276,661	146,616	242,106	42,650	92,436

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-83. Federal obligations for research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	218,068	78,186	51,790	88,092	4,395,848	2,334,373	141,548	152,052	1,645,894	121,981
Departments										
Department of Agriculture, total	-	-	-	-	263,230	51,305	48,031	151,186	12,708	-
Agricultural Marketing Service 1/	-	-	-	-	37	-	-	37	-	-
Agricultural Research Service	-	-	-	-	24,651	105	-	24,546	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	517	-	-	517	-	-
Cooperative State Research Service	-	-	-	-	224,667	40,699	40,917	124,343	12,708	-
Federal Grain Inspection Service	-	-	-	-	229	-	-	229	-	-
Forest Service	-	-	-	-	11,615	10,501	1,114	-	-	-
Human Nutrition Information Service	-	-	-	-	1,344	-	-	1,344	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	170	-	-	170	-	-
Department of Defense, total	26,834	7,239	7,565	12,030	90,963	26,033	35,610	-	25,208	4,112
Department of the Army	4,830	-	4,386	444	19,642	2,840	86	-	16,716	-
Department of the Navy	13,043	5,638	857	6,548	22,024	11,874	1,911	-	8,239	-
Department of the Air Force	7,755	530	2,187	5,038	10,267	5,724	344	-	87	4,112
Defense agencies	1,206	1,071	135	-	39,030	5,595	33,269	-	166	-
Department of Energy	-	-	-	-	52,597	39,249	449	50	11,459	1,390
Dept of Hlth & Human Services, total	176,285	63,122	39,763	73,400	3,751,584	2,047,772	484	425	1,590,833	112,070
Alcohol, Drug Abuse & Mental Hlth Admin	104,502	63,122	39,763	1,617	260,523	160,238	423	425	86,984	12,453
Centers for Disease Control	-	-	-	-	22,129	-	-	-	22,129	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,039	-	-	-	5,039	-
National Institutes of Health	71,783	-	-	71,783	3,458,771	1,885,280	61	-	1,473,813	99,617
Other agencies										
National Aeronautics & Space Admin	3,177	84	846	2,247	24,905	13,098	1,639	391	5,686	4,091
National Science Foundation	11,772	7,741	3,616	415	212,569	156,916	55,335	-	-	318

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 95 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-84. Federal obligations for research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	236,096	91,368	58,332	86,396	4,428,111	2,366,420	114,124	162,452	1,660,822	124,293
Departments										
Department of Agriculture, total	-	-	-	-	279,534	53,598	50,750	161,533	13,653	-
Agricultural Research Service	-	-	-	-	25,753	110	-	25,643	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	429	-	-	429	-	-
Cooperative State Research Service	-	-	-	-	238,773	42,174	49,550	133,396	13,653	-
Federal Grain Inspection Service	-	-	-	-	325	-	-	325	-	-
Forest Service	-	-	-	-	12,514	11,314	1,200	-	-	-
Human Nutrition Information Service	-	-	-	-	1,531	-	-	1,531	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	209	-	-	209	-	-
Department of Defense, total	25,500	8,292	7,276	9,932	57,506	26,041	2,582	-	24,926	3,957
Department of the Army	3,517	-	3,472	45	19,358	2,840	212	-	16,306	-
Department of the Navy	13,130	7,835	237	5,058	23,189	12,680	1,973	-	8,536	-
Department of the Air Force	7,391	457	2,105	4,829	9,861	5,490	330	-	84	3,957
Defense agencies	1,462	-	1,462	-	5,098	5,031	67	-	-	-
Department of Energy	-	-	-	-	53,377	39,878	315	50	11,540	1,594
Dept of Hlth & Human Services, total	194,627	74,855	46,298	73,474	3,786,167	2,067,262	484	425	1,604,239	113,757
Alcohol, Drug Abuse & Mental Hlth Admin	123,071	74,855	46,298	1,918	305,295	185,886	423	425	104,095	14,466
Centers for Disease Control	-	-	-	-	23,235	-	-	-	23,235	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,038	-	-	-	5,038	-
National Institutes of Health	71,556	-	-	71,556	3,447,477	1,879,122	61	-	1,469,003	99,291
Other agencies										
National Aeronautics & Space Admin	3,612	95	962	2,555	28,312	14,889	1,864	444	6,464	4,651
National Science Foundation	12,357	8,126	3,796	435	223,215	164,752	58,129	-	-	334

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-85. Federal obligations for research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	254,765	101,098	62,491	91,176	4,681,860	2,521,212	118,832	181,639	1,729,974	130,203
Departments										
Department of Agriculture, total	-	-	-	-	304,454	71,992	46,640	180,683	5,139	-
Agricultural Research Service	-	-	-	-	27,678	118	-	27,560	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	346	-	-	346	-	-
Cooperative State Research Service	-	-	-	-	259,912	59,390	45,315	150,068	5,139	-
Federal Grain Inspection Service	-	-	-	-	194	-	-	194	-	-
Forest Service	-	-	-	-	13,809	12,484	1,325	-	-	-
Human Nutrition Information Service	-	-	-	-	2,305	-	-	2,305	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	210	-	-	210	-	-
Department of Defense, total	27,176	9,041	7,169	10,966	62,330	27,895	4,232	-	26,146	4,057
Department of the Army	3,345	-	3,287	58	20,425	2,840	310	-	17,275	-
Department of the Navy	14,141	8,517	252	5,372	24,563	13,683	2,095	-	8,785	-
Department of the Air Force	8,218	524	2,158	5,536	10,773	6,457	173	-	86	4,057
Defense agencies	1,472	-	1,472	-	6,569	4,915	1,654	-	-	-
Department of Energy	-	-	-	-	52,704	39,396	230	50	11,449	1,579
Dept of Hlth & Human Services, total	209,820	82,836	50,023	76,961	3,981,297	2,180,968	488	425	1,680,251	119,165
Alcohol, Drug Abuse & Mental Hlth Admin	134,884	82,836	50,023	2,025	339,430	210,836	423	425	112,561	15,185
Centers for Disease Control	-	-	-	-	21,397	-	-	-	21,397	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,038	-	-	-	5,038	-
National Institutes of Health	74,936	-	-	74,936	3,610,310	1,967,878	65	-	1,538,387	103,980
Other agencies										
National Aeronautics & Space Admin	3,905	103	1,040	2,762	30,610	16,098	2,015	481	6,989	5,027
National Science Foundation	13,864	9,118	4,259	487	250,465	184,863	65,227	-	-	375

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-86. Federal obligations for research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	929,635	78,398	297,704	485,699	67,834	460,488	122,416	135,426	176,935	25,711
Departments										
Department of Agriculture, total	11,809	-	11,809	-	-	2,154	1,511	643	-	-
Cooperative State Research Service	11,809	-	11,809	-	-	1,012	1,012	-	-	-
Forest Service	-	-	-	-	-	1,142	499	643	-	-
Department of Defense, total	96,330	4,302	41,971	48,504	1,553	114,235	22,576	42,567	48,938	154
Department of the Army	14,510	-	7,683	6,815	12	5,500	4,391	955	-	154
Department of the Navy	31,075	340	14,348	15,717	670	64,467	5,383	20,881	38,203	-
Department of the Air Force	35,283	3,817	15,492	15,673	301	12,058	10,471	1,587	-	-
Defense agencies	15,462	145	4,448	10,299	570	32,210	2,331	19,144	10,735	-
Department of Energy	265,702	-	43,706	221,546	450	27,736	4,275	18,925	3,889	647
Dept of Hlth & Human Services, total	79,941	-	76,480	3,266	195	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	1,634	-	1,634	-	-	-	-	-	-	-
National Institutes of Health	78,307	-	74,846	3,266	195	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	125,428	49,741	5,215	56,295	14,177	81,518	37,902	17,486	5,489	20,641
National Science Foundation	350,425	24,355	118,523	156,088	51,459	234,845	56,152	55,805	118,619	4,269

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 95 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-87. Federal obligations for research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c
Total, all agencies	960,164	86,420	298,023	503,780	71,941	474,936	133,903	129,938	181,921	29,174
Departments										
Department of Agriculture, total	12,140	-	12,140	-	-	2,256	1,564	692	-	-
Cooperative State Research Service	12,140	-	12,140	-	-	1,027	1,027	-	-	-
Forest Service	-	-	-	-	-	1,229	537	692	-	-
Department of Defense, total	91,655	3,985	39,158	47,363	1,149	101,982	19,907	33,861	47,347	867
Department of the Army	13,645	-	6,689	6,941	15	5,289	3,599	955	-	735
Department of the Navy	32,088	327	14,810	16,312	639	66,866	5,261	21,553	39,920	132
Department of the Air Force	33,845	3,658	14,859	15,039	289	10,919	9,414	1,505	-	-
Defense agencies	12,077	-	2,800	9,071	206	18,908	1,633	9,848	7,427	-
Department of Energy	265,503	-	39,778	225,270	455	31,464	10,389	16,916	3,800	359
Dept of Hlth & Human Services, total	80,015	-	76,560	3,254	201	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	1,951	-	1,951	-	-	-	-	-	-	-
National Institutes of Health	78,064	-	74,609	3,254	201	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	142,589	56,547	5,928	63,998	16,116	92,671	43,087	19,879	6,240	23,465
National Science Foundation	368,262	25,888	124,459	163,895	54,020	246,563	58,956	58,590	124,534	4,483

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-88. Federal obligations for research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c
Total, all agencies	1,035,326	94,176	315,210	545,629	80,311	510,825	139,797	139,017	200,191	31,820
Departments										
Department of Agriculture, total	11,136	-	11,136	-	-	2,351	1,587	764	-	-
Cooperative State Research Service	11,136	-	11,136	-	-	995	995	-	-	-
Forest Service	-	-	-	-	-	1,356	592	764	-	-
Department of Defense, total	100,153	4,545	42,058	52,323	1,227	107,042	20,938	36,036	49,153	915
Department of the Army	13,738	-	6,727	6,987	24	5,249	3,608	976	-	665
Department of the Navy	34,406	351	15,731	17,635	689	71,148	5,510	22,892	42,496	250
Department of the Air Force	38,096	4,194	16,828	16,777	297	12,007	10,348	1,659	-	-
Defense agencies	13,913	-	2,772	10,924	217	18,638	1,472	10,509	6,657	-
Department of Energy	273,056	-	35,406	236,807	843	24,581	4,536	14,983	4,557	505
Dept of Hlth & Human Services, total	84,158	-	80,548	3,407	203	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	2,407	-	2,407	-	-	-	-	-	-	-
National Institutes of Health	81,751	-	78,141	3,407	203	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	154,158	61,135	6,409	69,190	17,424	100,190	46,583	21,492	6,746	25,369
National Science Foundation	412,665	28,496	139,653	183,902	60,614	276,661	66,153	65,742	139,735	5,031

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-89. Federal obligations for research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	749,156	71,724	19,790	41,902	46,290	151,536	87,536	194,090	136,288
Departments									
Department of Agriculture, total	13,850	-	-	-	-	-	-	-	13,850
Cooperative State Research Service	13,850	-	-	-	-	-	-	-	13,850
Department of Defense, total	316,627	31,955	10,934	2,074	11,823	78,204	37,114	131,369	13,154
Department of the Army	35,607	4,060	253	1,237	5,090	14,741	4,235	5,626	365
Department of the Navy	61,791	-	1,505	447	236	17,616	24,062	12,170	5,755
Department of the Air Force	85,128	22,114	7,335	175	1,480	34,758	4,959	13,607	700
Defense agencies	134,101	5,781	1,841	215	5,017	11,089	3,858	99,966	6,334
Department of Energy	67,212	-	-	709	2,982	2,397	9,279	22,546	29,299
Dept of Hlth & Human Services, total	34,963	-	-	-	-	-	-	-	34,963
National Institutes of Health	34,963	-	-	-	-	-	-	-	34,963
Other agencies									
National Aeronautics & Space Admin	111,421	39,402	8,856	1,661	91	8,989	9,811	15,101	27,510
National Science Foundation	205,083	367	-	37,458	31,394	61,946	31,332	25,074	17,512

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 95 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-90. Federal obligations for research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	720,978	73,618	19,509	43,097	46,492	152,417	87,173	170,600	128,072
Departments									
Department of Agriculture, total	14,560	-	-	-	-	-	-	-	14,560
Cooperative State Research Service	14,560	-	-	-	-	-	-	-	14,560
Department of Defense, total	275,863	28,439	9,442	1,300	11,153	75,198	33,577	104,245	12,509
Department of the Army	33,891	3,740	28	544	5,410	13,174	3,491	5,474	2,030
Department of the Navy	61,632	-	1,436	453	226	17,901	24,183	11,942	5,491
Department of the Air Force	80,723	20,228	7,052	303	1,520	33,371	4,759	12,817	673
Defense agencies	99,617	4,471	926	-	3,997	10,752	1,144	74,012	4,315
Department of Energy	53,294	-	-	506	2,229	1,830	9,478	22,829	16,422
Dept of Hlth & Human Services, total	34,853	-	-	-	-	-	-	-	34,853
National Institutes of Health	34,853	-	-	-	-	-	-	-	34,853
Other agencies									
National Aeronautics & Space Admin	126,665	44,793	10,067	1,889	103	10,219	11,153	17,167	31,274
National Science Foundation	215,743	386	-	39,402	33,007	65,170	32,965	26,359	18,454

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-91. Federal obligations for research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	805,566	78,993	20,874	48,112	51,732	167,146	95,946	213,015	129,748
Departments									
Department of Agriculture, total	12,138	-	-	-	-	-	-	-	12,138
Cooperative State Research Service	12,138	-	-	-	-	-	-	-	12,138
Department of Defense, total	326,912	30,133	9,989	1,545	11,956	80,875	38,233	144,184	9,997
Department of the Army	34,216	3,811	80	670	5,982	13,909	3,421	5,533	810
Department of the Navy	75,060	-	1,548	564	244	22,611	28,509	15,666	5,918
Department of the Air Force	85,852	21,842	7,432	311	1,711	34,347	5,292	14,226	691
Defense agencies	131,784	4,480	929	-	4,019	10,008	1,011	108,759	2,578
Department of Energy	50,967	-	-	309	2,623	2,092	8,660	20,692	16,591
Dept of Hlth & Human Services, total	36,500	-	-	-	-	-	-	-	36,500
National Institutes of Health	36,500	-	-	-	-	-	-	-	36,500
Other agencies									
National Aeronautics & Space Admin	136,943	48,427	10,885	2,041	112	11,048	12,058	18,560	33,812
National Science Foundation	242,106	433	-	44,217	37,041	73,131	36,995	29,579	20,710

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-92. Federal obligations for research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	344,809	115,208	158,790	70,811	155,254	8,031	45,585	5,397	43,423	52,818
Departments										
Department of Agriculture, total	497	497	-	-	34,687	-	27,536	-	7,151	-
Agricultural Cooperative Service	-	-	-	-	223	-	223	-	-	-
Cooperative State Research Service	-	-	-	-	32,293	-	25,142	-	7,151	-
Economic Research Service	-	-	-	-	1,689	-	1,689	-	-	-
Forest Service	221	221	-	-	482	-	482	-	-	-
Nat'l Agricultural Statistical Svc	276	276	-	-	-	-	-	-	-	-
Department of Defense, total	170,381	32,165	69,378	68,838	64	-	38	-	26	-
Department of the Army	6,864	2,945	3,844	75	64	-	38	-	26	-
Department of the Navy	20,975	10,270	10,705	-	-	-	-	-	-	-
Department of the Air Force	15,234	9,053	5,826	355	-	-	-	-	-	-
Defense agencies	127,308	9,897	49,003	68,408	-	-	-	-	-	-
Department of Energy	18,557	13,727	4,830	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	4,715	4,666	49	-	84,284	722	7,409	1,922	33,118	41,113
Alcohol, Drug Abuse & Mental Hlth Admin	415	415	-	-	38,624	722	1,797	1,749	26,754	7,602
Health Care Financing Admin	-	-	-	-	11,277	-	-	-	-	11,277
Human Development Services	-	-	-	-	2,408	-	-	-	-	2,408
National Institutes of Health	4,300	4,251	49	-	16,174	-	-	-	-	16,174
Office of Asst't Secy for Health	-	-	-	-	8,691	-	3,364	-	5,327	-
Office of the Secretary	-	-	-	-	3,458	-	2,248	173	1,037	-
Social Security Administration	-	-	-	-	3,652	-	-	-	-	3,652
Other agencies										
National Aeronautics & Space Admin	26,208	998	23,237	1,973	65	-	27	25	-	13
National Science Foundation	124,451	63,155	61,296	-	36,154	7,309	10,575	3,450	3,128	11,692

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 95 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-93. Federal obligations for research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political Science	Sociology	Social sciences n.e.c.
Total, all agencies	354,377	118,678	160,224	75,475	166,020	8,424	47,284	5,768	53,843	50,701
Departments										
Department of Agriculture, total	461	461	-	-	34,737	-	27,460	-	7,277	-
Cooperative State Research Service	-	-	-	-	33,664	-	26,387	-	7,277	-
Economic Research Service	-	-	-	-	554	-	554	-	-	-
Forest Service	238	238	-	-	519	-	519	-	-	-
Nat'l Agricultural Statistical Svc	223	223	-	-	-	-	-	-	-	-
Department of Defense, total	169,707	32,037	64,438	73,232	47	-	28	-	19	-
Department of the Army	7,623	2,770	4,770	83	47	-	28	-	19	-
Department of the Navy	21,368	10,450	10,918	-	-	-	-	-	-	-
Department of the Air Force	15,475	9,539	5,594	342	-	-	-	-	-	-
Defense agencies	125,241	9,278	43,156	72,807	-	-	-	-	-	-
Department of Energy	18,967	14,030	4,937	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	4,781	4,720	61	-	93,155	751	8,631	2,115	43,259	38,399
Alcohol, Drug Abuse & Mental Hlth Admin	499	499	-	-	44,993	751	1,930	2,065	31,002	9,245
Health Care Financing Admin	-	-	-	-	7,954	-	-	-	-	7,954
Human Development Services	-	-	-	-	3,505	-	-	-	-	3,505
National Institutes of Health	4,282	4,221	61	-	16,115	-	-	-	-	16,115
Office of Asst't Secy for Health	-	-	-	-	18,008	-	6,051	-	11,957	-
Office of the Secretary	-	-	-	-	1,000	-	650	50	300	-
Social Security Administration	-	-	-	-	1,580	-	-	-	-	1,580
Other agencies										
National Aeronautics & Space Admin	29,794	1,134	26,417	2,243	74	-	31	28	-	15
National Science Foundation	130,667	66,296	64,371	-	38,007	7,673	11,134	3,625	3,268	12,287

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-94. Federal obligations for research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political Science	Sociology	Social sciences n.e.c.
Total, all agencies	359,465	119,007	164,318	76,140	169,313	9,399	43,217	6,327	54,453	55,917
Departments										
Department of Agriculture, total	485	485	-	-	30,945	-	23,522	-	7,423	-
Cooperative State Research Service	-	-	-	-	29,818	-	22,395	-	7,423	-
Economic Research Service	-	-	-	-	554	-	554	-	-	-
Forest Service	262	262	-	-	573	-	573	-	-	-
Nat'l Agricultural Statistical Svc	223	223	-	-	-	-	-	-	-	-
Department of Defense, total	164,447	31,928	58,804	73,715	49	-	29	-	20	-
Department of the Army	7,741	2,777	4,876	88	49	-	29	-	20	-
Department of the Navy	22,687	10,953	11,734	-	-	-	-	-	-	-
Department of the Air Force	16,434	9,905	6,178	351	-	-	-	-	-	-
Defense agencies	117,585	8,293	36,016	73,276	-	-	-	-	-	-
Department of Energy	10,692	6,029	4,663	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	5,014	4,950	64	-	95,589	789	7,138	2,228	43,321	42,113
Alcohol, Drug Abuse & Mental Hlth Admin	529	529	-	-	49,548	789	1,976	2,178	34,103	10,502
Health Care Financing Admin	-	-	-	-	8,640	-	-	-	-	8,640
Human Development Services	-	-	-	-	4,253	-	-	-	-	4,253
National Institutes of Health	4,485	4,421	64	-	16,876	-	-	-	-	16,876
Office of Asst't Secy for Health	-	-	-	-	13,430	-	4,512	-	8,918	-
Office of the Secretary	-	-	-	-	1,000	-	650	50	300	-
Social Security Administration	-	-	-	-	1,842	-	-	-	-	1,842
Other agencies										
National Aeronautics & Space Admin	32,211	1,227	28,559	2,425	80	-	33	31	-	16
National Science Foundation	146,616	74,388	72,228	-	42,650	8,610	12,495	4,068	3,689	13,788

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The research obligations of the six agencies included in this table represent approximately 96 percent of total Federal research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-95. Federal obligations for basic research performed at universities and colleges, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of science/engineering	1989	Estimates	
		1990	1991
Total, all fields	5,167,140	5,305,113	5,652,165
Life sciences, total	2,902,645	2,934,559	3,109,192
Biological (excluding environmental)	1,645,581	1,661,831	1,768,500
Environmental biology	69,515	72,838	78,344
Agricultural	84,264	89,304	103,196
Medical	1,029,978	1,035,743	1,080,674
Life sciences, n.e.c.	73,307	74,843	78,478
Psychology, total	124,963	133,248	143,720
Biological aspects	41,914	46,305	51,296
Social aspects	24,717	28,738	30,764
Psychological sciences, n.e.c.	58,332	58,205	61,660
Physical sciences, total	782,712	817,206	886,047
Astronomy	76,332	84,138	91,703
Chemistry	258,507	261,711	279,671
Physics	383,550	402,711	438,250
Physical sciences, n.e.c.	64,323	68,646	76,423
Environmental sciences, total	424,120	447,675	479,520
Atmospheric	110,834	122,709	128,020
Geological	116,008	119,903	126,051
Oceanography	172,743	177,732	195,600
Environmental sciences, n.e.c.	24,535	27,331	29,849
Mathematics & computer sciences, total	244,169	256,482	257,606
Mathematics	111,794	115,686	116,223
Computer sciences	116,729	124,500	127,646
Mathematics & computer sciences, n.e.c.	15,646	16,296	13,737
Engineering, total	484,523	491,501	543,586
Aeronautical	45,651	46,186	49,962
Astronautical	11,238	11,299	12,253
Chemical	31,323	32,671	36,560
Civil	34,794	34,894	38,591
Electrical	110,070	110,797	124,071
Mechanical	67,743	67,472	74,529
Metallurgy & materials	130,309	134,967	150,751
Engineering, n.e.c.	53,395	53,215	56,869
Social sciences, total	70,133	82,911	81,611
Anthropology	7,643	8,032	6,980
Economics	18,379	21,595	19,370
Political science	3,924	4,243	4,717
Sociology	19,728	27,860	25,524
Social sciences, n.e.c.	20,459	21,181	23,020
Other sciences, n.e.c.	133,875	141,531	150,883

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989, 1990, and 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-96. Federal obligations for basic research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	5,167,140	2,902,645	124,963	782,712	424,120	244,169	484,523	70,133	133,875
Departments									
Department of Agriculture, total	154,200	134,681	-	5,063	860	99	4,200	9,297	-
Agricultural Research Service	14,161	14,161	-	-	-	-	-	-	-
Cooperative State Research Service	133,754	115,302	-	5,063	345	-	4,200	8,844	-
Economic Research Service	236	-	-	-	-	-	-	236	-
Forest Service	6,049	5,218	-	-	515	99	-	217	-
Department of Defense, total	511,857	39,953	20,972	85,861	91,018	77,475	196,349	-	229
Department of the Army	61,303	9,532	3,617	12,798	4,080	5,680	25,465	-	131
Department of the Navy	184,067	18,498	10,716	29,186	59,851	20,975	44,743	-	98
Department of the Air Force	111,048	5,893	5,568	29,269	7,684	12,500	50,134	-	-
Defense agencies	155,439	6,030	1,071	14,608	19,403	38,320	76,007	-	-
Department of Energy	301,409	38,236	-	185,913	23,039	18,557	35,648	-	16
Dept of Hlth & Human Services, total	2,727,729	2,463,730	89,192	63,941	-	3,095	25,356	30,088	52,327
Alcohol, Drug Abuse & Mental Hlth Admin	167,479	108,177	44,540	775	-	186	-	12,517	1,284
National Institutes of Health	2,551,559	2,355,553	44,652	63,166	-	2,909	25,356	8,880	51,043
Office of Asst't Secy for Health	8,691	-	-	-	-	-	-	8,691	-
Other agencies									
National Aeronautics & Space Admin	298,712	20,802	3,054	100,279	78,028	23,169	64,554	65	8,761
National Science Foundation	1,173,233	205,243	11,745	341,655	231,175	121,774	158,416	30,683	72,542

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-97. Federal obligations for basic research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	5,305,113	2,934,559	133,248	817,206	447,675	256,482	491,501	82,911	141,531
Departments									
Department of Agriculture, total	261,552	141,654	-	5,150	871	101	4,369	9,407	-
Agricultural Research Service	14,794	14,794	-	-	-	-	-	-	-
Cooperative State Research Service	140,517	121,543	-	5,150	347	-	4,369	9,108	-
Economic Research Service	78	-	-	-	-	-	-	78	-
Forest Service	6,163	5,317	-	-	524	101	-	221	-
Department of Defense, total	499,333	40,560	20,431	81,043	87,363	80,116	186,565	-	3,255
Department of the Army	59,565	10,321	2,622	12,449	3,872	5,907	24,394	-	-
Department of the Navy	190,129	19,489	11,061	30,286	62,462	21,368	45,363	-	100
Department of the Air Force	105,601	5,652	5,286	28,058	6,710	12,844	47,051	-	-
Defense agencies	144,038	5,098	1,462	10,250	14,319	39,997	69,757	-	3,155
Department of Energy	316,561	39,715	-	194,194	28,061	18,967	35,604	-	20
Dept of Hlth & Human Services, total	2,756,169	2,473,529	97,016	63,850	-	3,128	25,279	41,220	52,147
Alcohol, Drug Abuse & Mental Hlth Admin	195,003	125,736	52,511	881	-	229	-	14,362	1,284
National Institutes of Health	2,543,158	2,347,793	44,505	62,969	-	2,899	25,279	8,850	50,863
Office of Asst't Secy for Health	18,008	-	-	-	-	-	-	18,008	-
Other agencies									
National Aeronautics & Space Admin	339,582	23,648	3,472	113,999	88,704	26,339	73,386	74	9,960
National Science Foundation	1,231,916	215,453	12,329	358,970	242,676	127,831	166,298	32,210	76,149

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-98. Federal obligations for basic research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	5,652,165	3,109,192	143,720	886,047	479,520	257,606	543,586	81,611	150,883
Departments									
Department of Agriculture, total	175,802	159,941	-	4,162	874	111	3,210	7,504	-
Agricultural Research Service	15,900	15,900	-	-	-	-	-	-	-
Cooperative State Research Service	153,024	138,174	-	4,162	296	-	3,210	7,182	-
Economic Research Service	78	-	-	-	-	-	-	78	-
Forest Service	6,800	5,867	-	-	578	111	-	244	-
Department of Defense, total	528,771	43,977	21,701	88,059	88,335	71,610	214,988	-	101
Department of the Army	59,555	10,213	2,421	12,532	3,975	5,977	24,437	-	-
Department of the Navy	211,664	20,738	11,748	32,463	66,402	22,687	57,525	-	101
Department of the Air Force	117,430	6,457	6,060	32,162	7,691	13,736	51,324	-	-
Defense agencies	140,122	6,569	1,472	10,902	10,267	29,210	81,702	-	-
Department of Energy	306,769	39,652	-	201,314	22,112	10,692	32,979	-	20
Dept of Hlth & Human Services, total	2,891,957	2,598,304	104,431	67,030	-	3,284	26,473	37,885	54,550
Alcohol, Drug Abuse & Mental Hlth Admin	215,249	139,619	57,824	1,087	-	248	-	15,187	1,284
National Institutes of Health	2,663,278	2,458,685	46,607	65,943	-	3,036	26,473	9,268	53,266
Office of Asst't Secy for Health	13,430	-	-	-	-	-	-	13,430	-
Other agencies									
National Aeronautics & Space Admin	367,135	25,567	3,754	123,249	95,901	28,476	79,341	80	10,767
National Science Foundation	1,381,731	241,751	13,834	402,233	272,298	143,433	186,595	36,142	85,445

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-99. Federal obligations for basic research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	124,963	41,914	24,717	58,332	2,902,645	1,645,581	69,515	84,264	1,029978	73,307
Departments										
Department of Agriculture, total	-	-	-	-	134,681	30,243	14,376	83,711	6,351	-
Agricultural Research Service	-	-	-	-	14,161	60	-	14,101	-	-
Cooperative State Research Service	-	-	-	-	115,302	25,465	13,876	69,610	6,351	-
Forest Service	-	-	-	-	5,218	4,718	500	-	-	-
Department of Defense, total	20,972	7,239	3,351	10,382	39,953	26,033	2,414	-	11,506	-
Department of the Army	3,617	-	3,173	444	9,532	2,840	65	-	6,627	-
Department of the Navy	10,716	5,638	178	4,900	18,498	11,874	1,911	-	4,713	-
Department of the Air Force	5,568	530	-	5,038	5,893	5,724	169	-	-	-
Defense agencies	1,071	1,071	-	-	6,030	5,595	269	-	166	-
Department of Energy	-	-	-	-	38,236	36,527	79	-	380	1,250
Dept of Hlth & Human Services, total	89,192	26,851	16,961	45,380	2,463,730	1,388,526	220	200	1,006683	68,101
Alcohol, Drug Abuse & Mental Hlth Admin	44,540	26,851	16,961	728	108,177	68,186	199	200	33,953	5,639
National Institutes of Health	44,652	-	-	44,652	2,355,553	1,320,340	21	-	972,730	62,462
Other agencies										
National Aeronautics & Space Admin	3,054	84	806	2,164	20,802	10,338	1,378	353	5,058	3,675
National Science Foundation	11,745	7,740	3,599	406	205,243	153,914	51,048	-	-	281

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-100. Federal obligations for basic research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	133,248	46,305	28,738	58,205	2,934,559	1,661,831	72,838	89,304	1,035,743	74,843
Departments										
Department of Agriculture, total	-	-	-	-	141,654	31,186	15,012	88,703	6,753	-
Agricultural Research Service	-	-	-	-	14,794	63	-	14,731	-	-
Cooperative State Research Service	-	-	-	-	121,543	26,315	14,503	73,972	6,753	-
Forest Service	-	-	-	-	5,317	4,808	509	-	-	-
Department of Defense, total	20,431	6,276	4,223	9,932	40,560	26,041	2,390	-	12,129	-
Department of the Army	2,622	-	2,577	45	10,321	2,840	188	-	7,293	-
Department of the Navy	11,061	5,819	184	5,058	19,489	12,680	1,973	-	4,836	-
Department of the Air Force	5,286	457	-	4,829	5,652	5,490	162	-	-	-
Defense agencies	1,462	-	1,462	-	5,098	5,031	67	-	-	-
Department of Energy	-	-	-	-	39,715	37,825	58	-	379	1,453
Dept of Hlth & Human Services, total	97,016	31,809	19,821	45,386	2,473,529	1,393,456	224	200	1,010,732	68,917
Alcohol, Drug Abuse & Mental Hlth Admin	52,511	31,809	19,821	881	125,736	77,473	199	200	41,204	6,660
National Institutes of Health	44,505	-	-	44,505	2,347,793	1,315,983	25	-	969,528	62,257
Other agencies										
National Aeronautics & Space Admin	3,472	95	916	2,461	23,648	11,752	1,567	401	5,750	4,178
National Science Foundation	12,329	8,125	3,778	426	215,453	161,571	53,587	-	-	295

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-101. Federal obligations for basic research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	143,720	51,296	30,764	61,660	3,109,192	1,768,500	78,344	103,196	1,080,674	78,478
Departments										
Department of Agriculture, total	-	-	-	-	159,941	42,891	12,249	102,562	2,239	-
Agricultural Research Service	-	-	-	-	15,900	68	-	15,832	-	-
Cooperative State Research Service	-	-	-	-	138,174	37,518	11,687	86,730	2,239	-
Forest Service	-	-	-	-	5,867	5,305	562	-	-	-
Department of Defense, total	21,701	6,705	4,030	10,966	43,977	27,895	4,023	-	12,059	-
Department of the Army	2,421	-	2,363	58	10,213	2,840	274	-	7,099	-
Department of the Navy	11,748	6,181	195	5,372	20,738	13,683	2,095	-	4,960	-
Department of the Air Force	6,060	524	-	5,536	6,457	6,457	-	-	-	-
Defense agencies	1,472	-	1,472	-	6,569	4,915	1,654	-	-	-
Department of Energy	-	-	-	-	39,652	37,931	24	-	381	1,316
Dept of Hlth & Human Services, total	104,431	35,371	21,504	47,556	2,598,304	1,465,785	226	200	1,059,778	72,315
Alcohol, Drug Abuse & Mental Hlth Admin	57,824	35,371	21,504	949	139,619	87,645	199	200	44,457	7,118
National Institutes of Health	46,607	-	-	46,607	2,458,685	1,378,140	27	-	1,015,321	65,197
Other agencies										
National Aeronautics & Space Admin	3,754	103	991	2,660	25,567	12,706	1,694	434	6,217	4,516
National Science Foundation	13,834	9,117	4,239	478	241,751	181,292	60,128	-	-	331

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-102. Federal obligations for basic research performed at universities and colleges in physical and environmental sciences ,by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	782,712	76,332	258,507	383,550	64,323	424,120	110,834	116,008	172,743	24,535
Departments										
Department of Agriculture, total	5,063	-	5,063	-	-	860	570	290	-	-
Cooperative State Research Service	5,063	-	5,063	-	-	345	345	-	-	-
Forest Service	-	-	-	-	-	515	225	290	-	-
Department of Defense, total	85,861	3,997	38,515	43,337	12	91,018	15,388	29,150	46,480	-
Department of the Army	12,798	-	5,971	6,815	12	4,080	3,196	884	-	-
Department of the Navy	29,186	35	14,348	14,803	-	59,851	3,225	20,881	35,745	-
Department of the Air Force	29,269	3,817	13,748	11,704	-	7,684	6,666	1,018	-	-
Defense agencies	14,608	145	4,448	10,015	-	19,403	2,301	6,367	10,735	-
Department of Energy	185,913	-	33,940	151,973	-	23,039	4,250	14,393	3,889	507
Dept of Hlth & Human Services, total	63,941	-	61,453	2,345	143	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	775	-	775	-	-	-	-	-	-	-
National Institutes of Health	63,166	-	60,678	2,345	143	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	100,279	48,127	5,126	34,181	12,845	78,028	35,582	17,300	5,383	19,763
National Science Foundation	341,655	24,208	114,410	151,714	51,323	231,175	55,044	54,875	116,991	4,265

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-103. Federal obligations for basic research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c
Total, all agencies	817,206	84,138	261,711	402,711	68,646	447,675	122,709	119,903	177,732	27,331
Departments										
Department of Agriculture, total	5,150	-	5,150	-	-	871	576	295	-	-
Cooperative State Research Service	5,150	-	5,150	-	-	347	347	-	-	-
Forest Service	-	-	-	-	-	524	229	295	-	-
Department of Defense, total	81,043	3,694	36,482	40,852	15	87,363	13,537	28,657	45,002	167
Department of the Army	12,449	-	5,692	6,742	15	3,872	2,950	887	-	35
Department of the Navy	30,286	36	14,810	15,440	-	62,462	3,202	21,553	37,575	132
Department of the Air Force	28,058	3,658	13,180	11,220	-	6,710	5,752	958	-	-
Defense agencies	10,250	-	2,800	7,450	-	14,319	1,633	5,259	7,427	-
Department of Energy	194,194	-	32,794	161,400	-	28,061	10,364	13,679	3,800	218
Dept of Hlth & Human Services, total	63,850	-	61,357	2,340	153	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	881	-	881	-	-	-	-	-	-	-
National Institutes of Health	62,969	-	60,476	2,340	153	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	113,999	54,712	5,827	38,858	14,602	88,704	40,450	19,667	6,120	22,467
National Science Foundation	358,970	25,732	120,101	159,261	53,876	242,676	57,782	57,605	122,810	4,479

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-104. Federal obligations for basic research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c
Total, all agencies	886,047	91,703	279,671	438,250	76,423	479,520	128,020	126,051	195,600	29,849
Departments										
Department of Agriculture, total	4,162	-	4,162	-	-	874	548	326	-	-
Cooperative State Research Service	4,162	-	4,162	-	-	296	296	-	-	-
Forest Service	-	-	-	-	-	578	252	326	-	-
Department of Defense, total	88,059	4,231	39,337	44,467	24	88,335	14,394	27,025	46,626	290
Department of the Army	12,532	-	5,727	6,781	24	3,975	3,038	897	-	40
Department of the Navy	32,463	37	15,731	16,695	-	66,402	3,291	22,892	39,969	250
Department of the Air Force	32,162	4,194	15,107	12,861	-	7,691	6,593	1,098	-	-
Defense agencies	10,902	-	2,772	8,130	-	10,267	1,472	2,138	6,657	-
Department of Energy	201,314	-	30,692	170,622	-	22,112	4,511	12,802	4,557	242
Dept of Hlth & Human Services, total	67,030	-	64,420	2,450	160	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	1,087	-	1,087	-	-	-	-	-	-	-
National Institutes of Health	65,943	-	63,333	2,450	160	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	123,249	59,151	6,300	42,011	15,787	95,901	43,732	21,263	6,616	24,290
National Science Foundation	402,233	28,321	134,760	178,700	60,452	272,298	64,835	64,635	137,801	5,027

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-105. Federal obligations for basic research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	484,523	45,651	11,238	31,323	34,794	110,070	67,743	130,309	53,395
Departments									
Department of Agriculture, total	4,200	-	-	-	-	-	-	-	4,200
Cooperative State Research Service	4,200	-	-	-	-	-	-	-	4,200
Department of Defense, total	196,349	19,792	3,577	656	8,544	55,984	27,409	78,357	2,030
Department of the Army	25,465	3,446	-	46	2,222	12,023	2,379	5,349	-
Department of the Navy	44,743	-	-	395	-	14,980	17,613	11,755	-
Department of the Air Force	50,134	10,565	1,736	-	1,305	21,462	3,559	11,507	-
Defense agencies	76,007	5,781	1,841	215	5,017	7,519	3,858	49,746	2,030
Department of Energy	35,648	-	-	188	-	-	9,183	21,368	4,909
Dept of Hlth & Human Services, total	25,356	-	-	-	-	-	-	-	25,356
National Institutes of Health	25,356	-	-	-	-	-	-	-	25,356
Other agencies									
National Aeronautics & Space Admin	64,554	25,583	7,661	1,183	91	6,675	7,404	9,248	6,709
National Science Foundation	158,416	276	-	29,296	26,159	47,411	23,747	21,336	10,191

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-106. Federal obligations for basic research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	491,501	46,186	11,299	32,671	34,894	110,797	67,472	134,967	53,215
Departments									
Department of Agriculture, total	4,369	-	-	-	-	-	-	-	4,369
Cooperative State Research Service	4,369	-	-	-	-	-	-	-	4,369
Department of Defense, total	186,565	16,813	2,590	437	7,331	53,439	24,751	80,298	906
Department of the Army	24,394	3,226	-	34	2,083	11,528	2,166	5,327	30
Department of the Navy	45,363	-	-	403	-	15,385	18,029	11,546	-
Department of the Air Force	47,051	9,116	1,664	-	1,251	20,576	3,412	11,032	-
Defense agencies	69,757	4,471	926	-	3,997	5,950	1,144	52,393	876
Department of Energy	35,604	-	-	134	-	-	9,376	21,758	4,336
Dept of Hlth & Human Services, total	25,279	-	-	-	-	-	-	-	25,279
National Institutes of Health	25,279	-	-	-	-	-	-	-	25,279
Other agencies									
National Aeronautics & Space Admin	73,386	29,083	8,709	1,346	103	7,588	8,417	10,513	7,627
National Science Foundation	166,298	290	-	30,754	27,460	49,770	24,928	22,398	10,698

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-107. Federal obligations for basic research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	543,586	49,962	12,253	36,560	38,591	124,071	74,529	150,751	56,869
Departments									
Department of Agriculture, total	3,210	-	-	-	-	-	-	-	3,210
Cooperative State Research Service	3,210	-	-	-	-	-	-	-	3,210
Department of Defense, total	214,988	18,194	2,837	540	7,666	60,025	28,890	94,573	2,263
Department of the Army	24,437	3,266	-	30	2,212	11,447	2,091	5,353	38
Department of the Navy	57,525	-	-	510	-	19,899	21,877	15,239	-
Department of the Air Force	51,324	10,448	1,908	-	1,435	21,226	3,911	12,396	-
Defense agencies	81,702	4,480	929	-	4,019	7,453	1,011	61,585	2,225
Department of Energy	32,979	-	-	58	-	-	8,567	19,680	4,674
Dept of Hlth & Human Services, total	26,473	-	-	-	-	-	-	-	26,473
National Institutes of Health	26,473	-	-	-	-	-	-	-	26,473
Other agencies									
National Aeronautics & Space Admin	79,341	31,443	9,416	1,454	112	8,204	9,100	11,366	8,246
National Science Foundation	186,595	325	-	34,508	30,813	55,842	27,972	25,132	12,003

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-108. Federal obligations for basic research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	244,169	111,794	116,729	15,646	70,133	7,643	18,379	3,924	19,728	20,459
Departments										
Department of Agriculture, total	99	99	-	-	9,297	-	6,854	-	2,443	-
Cooperative State Research Service	-	-	-	-	8,844	-	6,401	-	2,443	-
Economic Research Service	-	-	-	-	236	-	236	-	-	-
Forest Service	99	99	-	-	217	-	217	-	-	-
Department of Defense, total	77,475	30,987	32,086	14,402	-	-	-	-	-	-
Department of the Army	5,680	2,766	2,914	-	-	-	-	-	-	-
Department of the Navy	20,975	10,270	10,705	-	-	-	-	-	-	-
Department of the Air Force	12,500	8,670	3,830	-	-	-	-	-	-	-
Defense agencies	38,320	9,281	14,637	14,402	-	-	-	-	-	-
Department of Energy	18,557	13,727	4,830	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	3,095	3,080	15	-	30,068	334	4,194	788	14,574	10,198
Alcohol, Drug Abuse & Mental Hlth Admin	186	186	-	-	12,517	334	830	788	9,247	1,318
National Institutes of Health	2,909	2,894	15	-	8,880	-	-	-	-	8,880
Office of Asst't Secy for Health	-	-	-	-	8,691	-	3,364	-	5,327	-
Other agencies										
National Aeronautics & Space Admin	23,169	886	21,039	1,244	65	-	27	25	-	13
National Science Foundation	121,774	63,015	58,759	-	30,683	7,309	7,304	3,111	2,711	10,248

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal years 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-109. Federal obligations for basic research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	256,482	115,686	124,500	16,296	82,911	8,032	21,595	4,243	27,860	21,181
Departments										
Department of Agriculture, total	101	101	-	-	9,407	-	6,947	-	2,460	-
Cooperative State Research Service	-	-	-	-	9,108	-	6,648	-	2,460	-
Economic Research Service	-	-	-	-	78	-	78	-	-	-
Forest Service	101	101	-	-	221	-	221	-	-	-
Department of Defense, total	80,116	31,297	33,937	14,882	-	-	-	-	-	-
Department of the Army	5,907	2,735	3,172	-	-	-	-	-	-	-
Department of the Navy	21,368	10,450	10,918	-	-	-	-	-	-	-
Department of the Air Force	12,844	9,171	3,673	-	-	-	-	-	-	-
Defense agencies	39,997	8,941	16,174	14,882	-	-	-	-	-	-
Department of Energy	18,967	14,030	4,937	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	3,128	3,103	25	-	41,220	359	6,949	949	22,554	10,409
Alcohol, Drug Abuse & Mental Hlth Admin	229	229	-	-	14,362	359	898	949	10,597	1,559
National Institutes of Health	2,899	2,874	25	-	8,850	-	-	-	-	8,850
Office of Asst't Secy for Health	-	-	-	-	18,008	-	6,051	-	11,957	-
Other agencies										
National Aeronautics & Space Admin	26,339	1,007	23,918	1,414	74	-	31	28	-	15
National Science Foundation	127,831	66,148	61,683	-	32,210	7,673	7,668	3,266	2,846	10,757

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-110. Federal obligations for basic research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	257,606	116,223	127,646	13,737	81,611	8,980	19,370	4,717	25,524	23,020
Departments										
Department of Agriculture, total	111	111	-	-	7,504	-	5,293	-	2,211	-
Cooperative State Research Service	-	-	-	-	7,182	-	4,971	-	2,211	-
Economic Research Service	-	-	-	-	78	-	78	-	-	-
Forest Service	111	111	-	-	244	-	244	-	-	-
Department of Defense, total	71,610	31,514	27,888	12,208	-	-	-	-	-	-
Department of the Army	5,977	2,741	3,236	-	-	-	-	-	-	-
Department of the Navy	22,687	10,953	11,734	-	-	-	-	-	-	-
Department of the Air Force	13,736	5,527	4,209	-	-	-	-	-	-	-
Defense agencies	29,210	8,293	8,709	12,208	-	-	-	-	-	-
Department of Energy	10,692	6,029	4,663	-	-	-	-	-	-	-
Dept of Hlth & Human Services, total	3,284	3,258	26	-	37,885	370	5,440	1,021	20,120	10,934
Alcohol, Drug Abuse & Mental Hlth Admin	248	248	-	-	15,187	370	928	1,021	11,202	1,666
National Institutes of Health	3,036	3,010	26	-	9,268	-	-	-	-	9,268
Office of Asst't Secy for Health	-	-	-	-	13,430	-	4,512	-	8,918	-
Other agencies										
National Aeronautics & Space Admin	28,476	1,089	25,858	1,529	80	-	33	31	-	16
National Science Foundation	143,433	74,222	69,211	-	36,142	8,610	8,604	3,665	3,193	12,070

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The basic research obligations of the six agencies included in this table represent approximately 99 percent of total Federal basic research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-111. Federal obligations for applied research performed at universities and colleges, by detailed field of science/engineering: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Field of science/engineering	1989	Estimates	
		1990	..91
Total, all fields	2,305,387	2,241,826	2,380,436
Life sciences, total	1,493,203	1,493,552	1,572,668
Biological (excluding environmental)	688,782	704,589	752,712
Environmental biology	72,033	41,286	40,488
Agricultural	67,788	73,148	78,443
Medical	615,916	625,079	649,300
Life sciences, n.e.c.	48,674	49,450	51,725
Psychology, total	93,105	102,848	111,045
Biological aspects	36,272	45,063	49,802
Social aspects	27,073	29,564	31,727
Psychological sciences, n.e.c.	29,760	28,191	29,516
Physical sciences, total	146,923	142,958	149,279
Astronomy	2,066	2,282	2,473
Chemistry	39,197	36,312	35,539
Physics	102,149	101,069	107,379
Physical sciences, n.e.c.	3,511	3,295	3,888
Environmental sciences, total	36,368	27,261	31,305
Atmospheric	11,582	11,194	11,777
Geological	19,418	10,035	12,966
Oceanography	4,192	4,189	4,591
Environmental sciences, n.e.c.	1,176	1,843	1,971
Mathematics & computer sciences, total	100,640	97,895	101,859
Mathematics	3,414	2,992	2,784
Computer sciences	42,061	35,724	36,672
Mathematics & computer sciences, n.e.c.	55,165	59,179	62,403
Engineering, total	264,633	229,477	261,980
Aeronautical	26,073	27,432	29,031
Astronautical	8,552	8,210	8,621
Chemical	10,579	10,426	11,552
Civil	11,498	11,598	13,141
Electrical	41,486	41,620	43,075
Mechanical	19,793	19,701	21,417
Metallurgy & materials	63,781	35,633	62,264
Engineering, n.e.c.	82,893	74,857	72,879
Social sciences, total	85,121	83,109	87,702
Anthropology	388	392	419
Economics	27,206	25,689	23,847
Political science	1,473	1,525	1,610
Sociology	23,695	25,983	28,929
Social sciences, n.e.c.	32,359	29,520	32,897
Other sciences, n.e.c.	85,394	64,726	64,598

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal years 1989, 1990, and 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-112. Federal obligations for applied research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	2,305,387	1,493,203	93,105	146,923	36,368	100,640	264,633	85,121	85,394
Departments									
Department of Agriculture, total	172,027	128,549	-	6,748	1,294	398	9,650	25,390	-
Agricultural Cooperative Service	223	-	-	-	-	-	-	223	-
Agricultural Marketing Service 1/	37	37	-	-	-	-	-	-	-
Agricultural Research Service	10,490	10,490	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	517	517	-	-	-	-	-	-	-
Cooperative State Research Service	149,877	109,365	-	6,748	667	-	9,650	23,449	-
Economic Research Service	1,453	-	-	-	-	-	-	1,453	-
Federal Grain Inspection Service	229	229	-	-	-	-	-	-	-
Forest Service	7,411	6,397	-	-	627	122	-	265	-
Human Nutrition Information Service	1,344	1,344	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	276	-	-	-	-	276	-	-	-
Off of Internat'l Cooperation & Dev	170	170	-	-	-	-	-	-	-
Department of Defense, total	328,156	51,010	5,862	10,469	23,217	92,906	120,278	64	24,350
Department of the Army	26,143	10,110	1,213	1,712	1,420	1,184	10,142	64	298
Department of the Navy	29,406	3,526	2,327	1,889	4,616	-	17,048	-	-
Department of the Air Force	54,677	4,374	2,187	6,014	4,374	2,734	34,994	-	-
Defense agencies	217,930	33,000	135	854	12,807	88,988	58,094	-	24,052
Department of Energy	135,611	14,361	-	79,789	4,697	-	31,564	-	5,200
Dept of Hlth & Human Services, total	1,500,697	1,287,854	87,093	16,000	-	1,620	9,607	54,196	44,327
Alcohol, Drug Abuse & Mental Hlth Admin	240,951	152,346	59,962	859	-	229	-	26,107	1,448
Centers for Disease Control	22,129	22,129	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	11,277	-	-	-	-	-	-	11,277	-
Health Resources and Services Administration	5,039	5,039	-	-	-	-	-	-	-
Human Development Services	2,408	-	-	-	-	-	-	2,408	-
National Institutes of Health	1,206,661	1,103,218	27,131	15,141	-	1,391	9,607	7,294	42,879
Office of the Secretary	3,458	-	-	-	-	-	-	3,458	-
Social Security Administration	3,652	-	-	-	-	-	-	3,652	-
Other agencies									
National Aeronautics & Space Admin	88,416	4,103	123	25,149	3,490	3,039	46,867	-	5,645
National Science Foundation	80,480	7,326	27	8,770	3,670	2,677	46,667	5,471	5,872

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-113. Federal obligations for applied research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	2,241,826	1,493,552	102,848	142,958	27,261	97,895	229,477	83,109	64,726
Departments									
Department of Agriculture, total	182,136	137,880	-	6,990	1,385	360	10,191	25,330	-
Agricultural Research Service	10,959	10,959	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	429	429	-	-	-	-	-	-	-
Cooperative State Research Service	159,647	117,230	-	6,990	680	-	10,191	24,556	-
Economic Research Service	476	-	-	-	-	-	-	476	-
Federal Grain Inspection Service	325	325	-	-	-	-	-	-	-
Forest Service	8,337	7,197	-	-	705	137	-	298	-
Human Nutrition Information Service	1,531	1,531	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	223	-	-	-	-	223	-	-	-
Off of Internat'l Cooperation & Dev	209	209	-	-	-	-	-	-	-
Department of Defense, total	228,304	16,946	5,069	10,612	14,619	89,591	89,298	47	2,122
Department of the Army	23,942	9,037	895	1,196	1,417	1,716	9,497	47	137
Department of the Navy	28,244	3,700	2,069	1,802	4,404	-	16,269	-	-
Department of the Air Force	52,613	4,209	2,105	5,787	4,209	2,631	33,672	-	-
Defense agencies	123,505	-	-	1,827	4,589	85,244	29,860	-	1,985
Department of Energy	111,830	13,662	-	71,309	3,403	-	17,690	-	5,766
Dept of Hlth & Human Services, total	1,533,772	1,312,638	97,611	16,165	-	1,653	9,574	51,935	44,196
Alcohol, Drug Abuse & Mental Hlth Admin	283,538	179,559	70,560	1,070	-	270	-	30,631	1,448
Centers for Disease Control	23,235	23,235	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	7,954	-	-	-	-	-	-	7,954	-
Health Resources and Services Administration	5,038	5,038	-	-	-	-	-	-	-
Human Development Services	3,505	-	-	-	-	-	-	3,505	-
National Institutes of Health	1,202,800	1,099,684	27,051	15,095	-	1,383	9,574	7,265	42,748
Office of the Secretary	1,000	-	-	-	-	-	-	1,000	-
Social Security Administration	1,580	-	-	-	-	-	-	1,580	-
Other agencies									
National Aeronautics & Space Admin	100,513	4,664	140	28,590	3,967	3,455	53,279	-	6,418
National Science Foundation	85,271	7,762	28	9,292	3,887	2,836	49,445	5,797	6,224

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-114. Federal obligations for applied research performed at universities and colleges, by agency and field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Total	Life sciences	Psychology	Physical sciences	Environmental sciences	Mathematics and computer sciences	Engineering	Social sciences	Other sciences n.e.c.
Total, all agencies	2,380,436	1,572,668	111,045	149,279	31,305	101,859	261,980	87,702	64,598
Departments									
Department of Agriculture, total	185,707	144,513	-	6,974	1,477	374	8,928	23,441	-
Agricultural Research Service	11,778	11,778	-	-	-	-	-	-	-
Animal & Plant Health Inspection Svc	346	346	-	-	-	-	-	-	-
Cooperative State Research Service	160,975	121,738	-	6,974	699	-	8,928	22,636	-
Economic Research Service	476	-	-	-	-	-	-	476	-
Federal Grain Inspection Service	194	194	-	-	-	-	-	-	-
Forest Service	9,200	7,942	-	-	778	151	-	329	-
Human Nutrition Information Service	2,305	2,305	-	-	-	-	-	-	-
Nat'l Agricultural Statistical Svc	223	-	-	-	-	223	-	-	-
Off of Internat'l Cooperation & Dev	210	210	-	-	-	-	-	-	-
Department of Defense, total	260,132	18,353	5,475	12,094	18,707	92,837	111,924	49	693
Department of the Army	25,417	10,212	924	1,206	1,274	1,764	9,779	49	209
Department of the Navy	30,442	3,825	2,393	1,943	4,746	-	17,535	-	-
Department of the Air Force	53,950	4,316	2,158	5,934	4,316	2,698	34,528	-	-
Defense agencies	150,323	-	-	3,011	8,371	88,375	50,082	-	484
Department of Energy	109,012	13,052	-	71,742	2,469	-	17,988	-	3,761
Dept of Hlth & Human Services, total	1,621,185	1,382,993	105,389	17,128	-	1,730	10,027	57,704	46,214
Alcohol, Drug Abuse & Mental Hlth Admin	314,281	199,811	77,060	1,320	-	281	-	34,361	1,448
Centers for Disease Control	21,397	21,397	-	-	-	-	-	-	-
Food & Drug Administration	5,122	5,122	-	-	-	-	-	-	-
Health Care Financing Admin	8,640	-	-	-	-	-	-	8,640	-
Health Resources and Services Administration	5,038	5,038	-	-	-	-	-	-	-
Human Development Services	4,253	-	-	-	-	-	-	4,253	-
National Institutes of Health	1,259,612	1,151,625	28,329	15,808	-	1,449	10,027	7,608	44,766
Office of the Secretary	1,000	-	-	-	-	-	-	1,000	-
Social Security Administration	1,842	-	-	-	-	-	-	1,842	-
Other agencies									
National Aeronautics & Space Admin	108,668	5,043	151	30,909	4,289	3,735	57,602	-	6,939
National Science Foundation	95,732	8,714	30	10,432	4,363	3,183	55,511	6,508	6,991

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-115. Federal obligations for applied research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	93,105	36,272	27,073	29,760	1,493,203	688,792	72,033	67,788	615,916	48,674
Departments										
Department of Agriculture, total	-	-	-	-	128,549	21,062	33,655	67,475	6,357	-
Agricultural Marketing Service 1/	-	-	-	-	37	-	-	37	-	-
Agricultural Research Service	-	-	-	-	10,490	45	-	10,445	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	517	-	-	517	-	-
Cooperative State Research Service	-	-	-	-	109,365	15,234	33,041	54,733	6,357	-
Federal Grain Inspection Service	-	-	-	-	229	-	-	229	-	-
Forest Service	-	-	-	-	6,397	5,783	614	-	-	-
Human Nutrition Information Service	-	-	-	-	1,344	-	-	1,344	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	170	-	-	170	-	-
Department of Defense, total	5,862	-	4,214	1,648	51,010	-	33,196	-	13,702	4,112
Department of the Army	1,213	-	1,213	-	10,110	-	21	-	10,089	-
Department of the Navy	2,327	-	679	1,648	3,526	-	-	-	3,526	-
Department of the Air Force	2,187	-	2,187	-	4,374	-	175	-	87	4,112
Defense agencies	135	-	135	-	33,000	-	33,000	-	-	-
Department of Energy	-	-	-	-	14,361	2,722	370	50	11,079	140
Dept of Hlth & Human Services, total	87,093	36,271	22,802	28,020	1,287,854	659,246	264	225	584,150	43,969
Alcohol, Drug Abuse & Mental Hlth Admin	59,962	36,271	22,802	889	152,346	92,052	224	225	53,031	6,814
Centers for Disease Control	-	-	-	-	22,129	-	-	-	22,129	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,039	-	-	-	5,039	-
National Institutes of Health	27,131	-	-	27,131	1,103,218	564,940	40	-	501,083	37,155
Other agencies										
National Aeronautics & Space Admin	123	-	40	83	4,103	2,760	261	38	628	416
National Science Foundation	27	1	17	9	7,326	3,002	4,287	-	-	37

n.e.c. = Not elsewhere classified.

1/ Includes funds for the Office of Transportation.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-116. Federal obligations for applied research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	102,848	45,063	29,594	28,191	1,493,552	704,589	41,286	73,148	625,079	49,450
Departments										
Department of Agriculture, total	-	-	-	-	137,880	22,412	35,738	72,830	6,900	-
Agricultural Research Service	-	-	-	-	10,959	47	-	10,912	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	429	-	-	429	-	-
Cooperative State Research Service	-	-	-	-	117,230	15,859	35,047	59,424	6,900	-
Federal Grain Inspection Service	-	-	-	-	325	-	-	325	-	-
Forest Service	-	-	-	-	7,197	6,506	691	-	-	-
Human Nutrition Information Service	-	-	-	-	1,531	-	-	1,531	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	209	-	-	209	-	-
Department of Defense, total	5,069	2,016	3,053	-	16,946	-	192	-	12,797	3,957
Department of the Army	895	-	895	-	9,037	-	24	-	9,013	-
Department of the Navy	2,069	2,016	53	-	3,700	-	-	-	3,700	-
Department of the Air Force	2,105	-	2,105	-	4,209	-	168	-	84	3,957
Department of Energy	-	-	-	-	13,662	2,053	257	50	11,161	141
Dept of Hlth & Human Services, total	97,611	43,046	26,477	28,088	1,312,638	673,806	260	225	593,507	44,840
Alcohol, Drug Abuse & Mental Hlth Admin	70,560	43,046	26,477	1,037	179,559	108,413	224	225	62,891	7,806
Centers for Disease Control	-	-	-	-	23,235	-	-	-	23,235	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,038	-	-	-	5,038	-
National Institutes of Health	27,051	-	-	27,051	1,099,684	563,139	36	-	499,475	37,034
Other agencies										
National Aeronautics & Space Admin	140	-	46	94	4,664	3,137	297	43	714	473
National Science Foundation	28	1	18	9	7,762	3,181	4,542	-	-	39

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-117. Federal obligations for applied research performed at universities and colleges in psychology and life sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Psychology				Life sciences					
	Total	Biological aspects	Social aspects	Psychological sciences n.e.c.	Total	Biological	Environmental biology	Agricultural	Medical	Life sciences n.e.c.
Total, all agencies	111,045	49,802	31,727	29,516	1,572,668	752,712	40,488	78,443	649,300	51,725
Departments										
Department of Agriculture, total	-	-	-	-	144,513	29,101	34,391	78,121	2,900	-
Agricultural Research Service	-	-	-	-	11,778	50	-	11,728	-	-
Animal & Plant Health Inspection Svc	-	-	-	-	346	-	-	346	-	-
Cooperative State Research Service	-	-	-	-	121,738	21,872	33,628	63,338	2,900	-
Federal Grain Inspection Service	-	-	-	-	194	-	-	194	-	-
Forest Service	-	-	-	-	7,942	7,179	763	-	-	-
Human Nutrition Information Service	-	-	-	-	2,305	-	-	2,305	-	-
Off of Internat'l Cooperation & Dev	-	-	-	-	210	-	-	210	-	-
Department of Defense, total	5,475	2,336	3,139	-	18,353	-	209	-	14,087	4,057
Department of the Army	924	-	924	-	10,212	-	36	-	10,176	-
Department of the Navy	2,393	2,336	57	-	3,825	-	-	-	3,825	-
Department of the Air Force	2,158	-	2,158	-	4,316	-	173	-	86	4,057
Department of Energy	-	-	-	-	13,052	1,465	206	50	11,068	263
Dept of Hlth & Human Services, total	105,389	47,465	28,519	29,405	1,382,993	715,183	262	225	620,473	46,850
Alcohol, Drug Abuse & Mental Hlth Admin	77,060	47,465	28,519	1,076	199,811	123,191	224	225	68,104	8,067
Centers for Disease Control	-	-	-	-	21,397	-	-	-	21,397	-
Food & Drug Administration	-	-	-	-	5,122	2,254	-	-	2,868	-
Health Resources and Services Administration	-	-	-	-	5,038	-	-	-	5,038	-
National Institutes of Health	28,329	-	-	28,329	1,151,625	589,738	38	-	523,066	38,783
Other agencies										
National Aeronautics & Space Admin	151	-	49	102	5,043	3,392	321	47	772	511
National Science Foundation	30	1	20	9	8,714	3,571	5,099	-	-	44

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-118. Federal obligations for applied research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	146,923	2,066	39,197	102,149	3,511	36,368	11,582	19,418	4,192	1,176
Departments										
Department of Agriculture, total	6,746	-	6,746	-	-	1,294	941	353	-	-
Cooperative State Research Service	6,746	-	6,746	-	-	667	667	-	-	-
Forest Service	-	-	-	-	-	627	274	353	-	-
Department of Defense, total	10,469	305	3,456	5,167	1,541	23,217	7,188	13,417	2,458	154
Department of the Army	1,712	-	1,712	-	-	1,420	1,195	71	-	154
Department of the Navy	1,889	305	-	914	670	4,616	2,158	-	2,458	-
Department of the Air Force	6,014	-	1,744	3,969	301	4,374	3,805	569	-	-
Defense agencies	854	-	-	284	570	12,807	30	12,777	-	-
Department of Energy	79,789	-	9,766	69,573	450	4,697	25	4,532	-	140
Dept of Hlth & Human Services, total	16,000	-	15,027	921	52	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	859	-	859	-	-	-	-	-	-	-
National Institutes of Health	15,141	-	14,168	921	52	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	25,149	1,614	89	22,114	1,332	3,490	2,320	186	106	878
National Science Foundation	8,770	147	4,113	4,374	136	3,670	1,108	930	1,628	4

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-119. Federal obligations for applied research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	142,958	2,282	36,312	101,069	3,295	27,261	11,194	10,035	4,189	1,843
Departments										
Department of Agriculture, total	6,990	-	6,990	-	-	1,385	988	397	-	-
Cooperative State Research Service	6,990	-	6,990	-	-	680	680	-	-	-
Forest Service	-	-	-	-	-	705	308	397	-	-
Department of Defense, total	10,612	291	2,676	6,511	1,134	14,619	6,370	5,204	2,345	700
Department of the Army	1,196	-	997	199	-	1,417	649	68	-	700
Department of the Navy	1,802	291	-	872	639	4,404	2,059	-	2,345	-
Department of the Air Force	5,787	-	1,679	3,819	289	4,209	3,662	547	-	-
Defense agencies	1,827	-	-	1,621	206	4,589	-	4,589	-	-
Department of Energy	71,309	-	6,984	63,870	455	3,403	25	3,237	-	141
Dept of Hlth & Human Services, total	16,165	-	15,203	914	48	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	1,070	-	1,070	-	-	-	-	-	-	-
National Institutes of Health	15,095	-	14,133	914	48	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	28,590	1,835	101	25,140	1,514	3,967	2,637	212	120	998
National Science Foundation	9,292	156	4,358	4,634	144	3,887	1,174	985	1,724	4

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-120. Federal obligations for applied research performed at universities and colleges in physical and environmental sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Physical sciences					Environmental sciences				
	Total	Astronomy	Chemistry	Physics	Physical sciences n.e.c.	Total	Atmospheric	Geological	Oceanography	Environmental sciences n.e.c.
Total, all agencies	149,279	2,473	35,539	107,379	3,888	31,305	11,777	12,966	4,591	1,971
Departments										
Department of Agriculture, total	6,974	-	6,974	-	-	1,477	1,039	438	-	-
Cooperative State Research Service	6,974	-	6,974	-	-	699	699	-	-	-
Forest Service	-	-	-	-	-	778	340	438	-	-
Department of Defense, total	12,094	314	2,721	7,856	1,203	18,707	6,544	9,011	2,527	625
Department of the Army	1,206	-	1,000	206	-	1,274	570	79	-	625
Department of the Navy	1,943	314	-	940	689	4,746	2,219	-	2,527	-
Department of the Air Force	5,934	-	1,721	3,916	297	4,316	3,755	561	-	-
Defense agencies	3,011	-	-	2,794	217	8,371	-	8,371	-	-
Department of Energy	71,742	-	4,714	66,185	843	2,469	25	2,181	-	263
Dept of Hlth & Human Services, total	17,128	-	16,128	957	43	-	-	-	-	-
Alcohol, Drug Abuse & Mental Hlth Admin	1,320	-	1,320	-	-	-	-	-	-	-
National Institutes of Health	15,808	-	14,808	957	43	-	-	-	-	-
Other agencies										
National Aeronautics & Space Admin	30,909	1,984	179	27,179	1,637	4,289	2,851	229	130	1,079
National Science Foundation	10,432	175	4,893	5,202	162	4,363	1,318	1,107	1,934	4

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-121. Federal obligations for applied research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	264,633	26,073	8,552	10,579	11,496	41,466	19,793	63,781	82,893
Departments									
Department of Agriculture, total	9,650	-	-	-	-	-	-	-	9,650
Cooperative State Research Service	9,650	-	-	-	-	-	-	-	9,650
Department of Defense, total	120,278	12,163	7,357	1,418	3,279	22,220	9,705	53,012	11,124
Department of the Army	10,142	614	253	1,191	2,868	2,718	1,856	277	365
Department of the Navy	17,048	-	1,505	52	236	2,636	6,449	415	5,755
Department of the Air Force	34,994	11,549	5,599	175	175	13,296	1,400	2,100	700
Defense agencies	58,094	-	-	-	-	3,570	-	50,220	4,304
Department of Energy	31,564	-	-	521	2,982	2,397	96	1,178	24,390
Dept of Hlth & Human Services, total	9,607	-	-	-	-	-	-	-	9,607
National Institutes of Health	9,607	-	-	-	-	-	-	-	9,607
Other agencies									
National Aeronautics & Space Admin	46,867	13,819	1,195	478	-	2,314	2,407	5,853	20,801
National Science Foundation	46,667	91	-	8,162	5,235	14,535	7,585	3,738	7,321

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-122. Federal obligations for applied research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	229,477	27,432	8,210	10,426	11,598	41,620	19,701	35,633	74,857
Departments									
Department of Agriculture, total	10,191	-	-	-	-	-	-	-	10,191
Cooperative State Research Service	10,191	-	-	-	-	-	-	-	10,191
Department of Defense, total	89,298	11,626	6,852	863	3,822	21,759	8,826	23,947	11,603
Department of the Army	9,487	514	28	510	3,327	1,646	1,325	147	2,000
Department of the Navy	16,269	-	1,436	50	226	2,516	6,154	396	5,491
Department of the Air Force	33,672	11,112	5,388	303	269	12,795	1,347	1,785	673
Defense agencies	29,860	-	-	-	-	4,802	-	21,619	3,439
Department of Energy	17,690	-	-	372	2,229	1,830	102	1,071	12,086
Dept of Hlth & Human Services, total	9,574	-	-	-	-	-	-	-	9,574
National Institutes of Health	9,574	-	-	-	-	-	-	-	9,574
Other agencies									
National Aeronautics & Space Admin	53,279	15,710	1,358	543	-	2,631	2,736	6,654	23,647
National Science Foundation	49,445	96	-	8,648	5,547	15,400	8,037	3,961	7,756

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-123. Federal obligations for applied research performed at universities and colleges in engineering, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Engineering								
	Total	Aero-nautical	Astro-nautical	Chemical	Civil	Elec-trical	Mechan-ical	Metal-lurgy and materials	Engi-neering n.e.c.
Total, all agencies	261,980	29,031	8,621	11,552	13,141	43,075	21,417	62,264	72,879
Departments									
Department of Agriculture, total	8,928	-	-	-	-	-	-	-	8,928
Cooperative State Research Service	8,928	-	-	-	-	-	-	-	8,928
Department of Defense, total	111,924	11,939	7,152	1,005	4,290	20,850	9,343	49,611	7,734
Department of the Army	9,779	545	80	640	3,770	2,462	1,330	180	772
Department of the Navy	17,535	-	1,548	54	244	2,712	6,632	427	5,918
Department of the Air Force	34,528	11,394	5,524	311	276	13,121	1,381	1,830	691
Defense agencies	50,082	-	-	-	-	2,555	-	47,174	353
Department of Energy	17,988	-	-	251	2,623	2,092	93	1,012	11,917
Dept of Hlth & Human Services, total	10,027	-	-	-	-	-	-	-	10,027
National Institutes of Health	10,027	-	-	-	-	-	-	-	10,027
Other agencies									
National Aeronautics & Space Admin	57,602	16,984	1,469	587	-	2,844	2,950	7,194	25,566
National Science Foundation	55,511	108	-	9,709	6,228	17,289	9,023	4,447	8,707

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-124. Federal obligations for applied research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1989

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	100,640	3,414	42,061	55,165	86,121	388	27,206	1,473	23,695	32,359
Departments										
Department of Agriculture, total	398	398	-	-	25,390	-	20,682	-	4,708	-
Agricultural Cooperative Service	-	-	-	-	223	-	223	-	-	-
Cooperative State Research Service	-	-	-	-	23,449	-	18,741	-	4,708	-
Economic Research Service	-	-	-	-	1,453	-	1,453	-	-	-
Forest Service	122	122	-	-	265	-	265	-	-	-
Nat'l Agricultural Statistical Svc	276	276	-	-	-	-	-	-	-	-
Department of Defense, total	92,906	1,178	37,292	54,436	64	-	38	-	26	-
Department of the Army	1,184	179	930	75	64	-	38	-	26	-
Department of the Air Force	2,734	383	1,996	355	-	-	-	-	-	-
Defense agencies	88,988	616	34,366	54,006	-	-	-	-	-	-
Dept of Hlth & Human Services, total	1,620	1,586	34	-	54,196	388	3,215	1,134	18,544	30,917
Alcohol, Drug Abuse & Mental Hlth Admin	229	229	-	-	26,107	388	967	961	17,507	6,284
Health Care Financing Admin	-	-	-	-	11,277	-	-	-	-	11,277
Human Development Services	-	-	-	-	2,408	-	-	-	-	2,408
National Institutes of Health	1,391	1,357	34	-	7,294	-	-	-	-	7,294
Office of the Secretary	-	-	-	-	3,458	-	2,248	173	1,037	-
Social Security Administration	-	-	-	-	3,652	-	-	-	-	3,652
Other agencies										
National Aeronautics & Space Admin	3,039	112	2,198	729	-	-	-	-	-	-
National Science Foundation	2,677	140	2,537	-	5,471	-	3,271	339	417	1,444

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-125. Federal obligations for applied research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1990 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	97,895	2,992	35,724	59,179	83,109	392	25,689	1,525	25,983	29,520
Departments										
Department of Agriculture, total	360	360	-	-	25,330	-	20,513	-	4,817	-
Cooperative State Research Service	-	-	-	-	24,556	-	19,739	-	4,817	-
Economic Research Service	-	-	-	-	476	-	476	-	-	-
Forest Service	137	137	-	-	298	-	298	-	-	-
Nat'l Agricultural Statistical Svc	223	223	-	-	-	-	-	-	-	-
Department of Defense, total	89,591	740	30,501	58,350	47	-	28	-	19	-
Department of the Army	1,716	35	1,598	83	47	-	28	-	19	-
Department of the Air Force	2,631	368	1,921	342	-	-	-	-	-	-
Defense agencies	85,244	337	26,982	57,925	-	-	-	-	-	-
Dept of Hlth & Human Services, total	1,653	1,617	36	-	51,935	392	1,682	1,166	20,705	27,990
Alcohol, Drug Abuse & Mental Hlth Admin	270	270	-	-	30,631	392	1,032	1,116	20,405	7,686
Health Care Financing Admin	-	-	-	-	7,954	-	-	-	-	7,954
Human Development Services	-	-	-	-	3,505	-	-	-	-	3,505
National Institutes of Health	1,383	1,347	36	-	7,265	-	-	-	-	7,265
Office of the Secretary	-	-	-	-	1,000	-	650	50	300	-
Social Security Administration	-	-	-	-	1,580	-	-	-	-	1,580
Other agencies										
National Aeronautics & Space Admin	3,455	127	2,499	829	-	-	-	-	-	-
National Science Foundation	2,836	148	2,688	-	5,797	-	3,466	359	442	1,530

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1990.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-126. Federal obligations for applied research performed at universities and colleges in mathematics and computer sciences and in social sciences, by agency and detailed field of science/engineering: fiscal year 1991 (est.)

[Dollars in thousands]

Agency and subdivision	Mathematics and computer sciences				Social sciences					
	Total	Mathematics	Computer sciences	Mathematics and computer sciences n.e.c.	Total	Anthropology	Economics	Political science	Sociology	Social sciences n.e.c.
Total, all agencies	101,859	2,784	36,672	62,403	87,702	419	23,847	1,610	28,929	32,897
Departments										
Department of Agriculture, total	374	374	-	-	23,441	-	18,229	-	5,212	-
Cooperative State Research Service	-	-	-	-	22,636	-	17,424	-	5,212	-
Economic Research Service	-	-	-	-	476	-	476	-	-	-
Forest Service	151	151	-	-	329	-	329	-	-	-
Nat'l Agricultural Statistical Svc	223	223	-	-	-	-	-	-	-	-
Department of Defense, total	92,837	414	30,916	61,507	49	-	29	-	20	-
Department of the Army	1,764	36	1,640	88	49	-	29	-	20	-
Department of the Air Force	2,698	378	1,969	351	-	-	-	-	-	-
Defense agencies	88,375	-	27,307	61,068	-	-	-	-	-	-
Dept of Hlth & Human Services, total	1,730	1,692	38	-	57,704	419	1,698	1,207	23,201	31,179
Alcohol, Drug Abuse & Mental Hlth Admin	281	281	-	-	34,361	419	1,048	1,157	22,901	8,836
Health Care Financing Admin	-	-	-	-	8,640	-	-	-	-	8,640
Human Development Services	-	-	-	-	4,253	-	-	-	-	4,253
National Institutes of Health	1,449	1,411	38	-	7,608	-	-	-	-	7,608
Office of the Secretary	-	-	-	-	1,000	-	650	50	300	-
Social Security Administration	-	-	-	-	1,842	-	-	-	-	1,842
Other agencies										
National Aeronautics & Space Admin	3,735	138	2,701	896	-	-	-	-	-	-
National Science Foundation	3,183	166	3,017	-	6,508	-	3,891	403	496	1,718

n.e.c. = Not elsewhere classified.

NOTE: Only the following six agencies are required to report to this section of the survey: the Departments of Agriculture; Defense; Energy; and Health and Human Services; the National Aeronautics and Space Administration; and the National Science Foundation. The applied research obligations of the six agencies included in this table represent approximately 90 percent of total Federal applied research obligations to universities and colleges in fiscal year 1991.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1990, 1990 and 1991

Table C-127. Federal obligations for research and development to foreign performers, by region, country, and agency: fiscal year 1989

[Dollars in thousands]

Region and country	Total	Department of Agriculture	Department of Defense	Department of Energy	Department of Health and Human Services	Agency for Internat'l Development	National Science Foundation	Other
Total	919,381	4,292	769,532	2,196	48,642	76,672	1,555	16,492
Europe, total	508,074	2,536	479,501	1,772	14,555	-	1,380	8,330
Austria	1,608	-	655	-	16	-	-	937
Belgium	2,086	-	1,037	-	1,049	-	-	-
Denmark	385	-	67	-	318	-	-	-
Finland	4,271	-	2	-	4,269	-	-	-
France	133,233	932	131,098	-	959	-	244	-
Ireland	29	-	29	-	-	-	-	-
Italy	7,429	693	5,749	150	716	-	-	121
Netherlands	953	342	59	-	311	-	-	241
Norway	4,795	-	3,624	-	411	-	-	760
Poland	569	569	-	-	-	-	-	-
Portugal	50	-	10	-	40	-	-	-
Spain	221	-	50	-	171	-	-	-
Sweden	5,863	-	3,463	77	2,319	-	-	4
Switzerland	956	-	196	200	560	-	-	-
United Kingdom, total	187,006	-	179,347	1,277	3,164	-	1,136	2,082
England	60,089	-	53,856	1,277	3,164	-	-	1,792
Scotland	219	-	219	-	-	-	-	-
Bermuda	1,010	-	-	-	-	-	1,010	-
Other United Kingdom	125,688	-	125,272	-	-	-	126	290
West Germany	158,161	-	154,054	22	-	-	-	4,085
Yugoslavia	419	-	61	46	212	-	-	100
Other Europe	40	-	-	-	40	-	-	-
Asia, total	16,375	178	2,723	20	3,425	9,896	-	133
Hong Kong	20	-	-	-	20	-	-	-
India	1,947	-	214	-	1,713	20	-	-
Indonesia	8,402	-	-	-	-	8,402	-	-
Japan	373	12	-	20	208	-	-	133
South Korea	2,483	163	2,320	-	-	-	-	-
Malaysia	130	-	130	-	-	-	-	-
Pakistan	1,450	-	-	-	-	1,450	-	-
Thailand	191	-	-	-	191	-	-	-
Other Asia	1,379	3	59	-	1,293	24	-	-
Near East, total	150,982	98	146,797	46	3,880	-	-	161
Egypt	98	98	-	-	-	-	-	-
Greece	160	-	160	-	-	-	-	-
Israel	150,699	-	146,637	46	3,855	-	-	161
Lebanon	25	-	-	-	25	-	-	-
Africa, total	587	26	516	-	45	-	-	-
Kenya	516	-	516	-	-	-	-	-
Other Africa	71	26	-	-	45	-	-	-
Latin America, total	4,649	1,454	95	-	1,010	2,080	-	10
Argentina	286	198	-	-	88	-	-	-
Bolivia	1,397	-	-	-	-	1,397	-	-
Brazil	90	-	90	-	-	-	-	-
Chile	179	-	-	-	169	-	-	10
Costa Rica	333	333	-	-	-	-	-	-
Mexico	1,072	923	-	-	149	-	-	-
Panama	5	-	5	-	-	-	-	-
Venezuela	14	-	-	-	14	-	-	-
Other Latin America	1,273	-	-	-	590	683	-	-
Australia	2,972	-	1,286	167	1,341	-	-	178
Canada	165,176	-	137,410	191	19,720	-	175	7,680
New Zealand	751	-	484	-	267	-	-	-
International Organizations	69,815	-	720	-	4,399	64,696	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-128. Federal obligations for basic research to foreign performers, by region, country, and agency: fiscal year 1989

[Dollars in thousands]

Region and country	Total	Department of Agriculture	Department of Defense	Department of Health and Human Services	National Science Foundation	National Aeronautics and Space Admin	Other
Total	47,439	2,756	10,957	26,699	1,555	4,486	986
Europe, total	19,413	1,631	6,340	7,383	1,380	2,077	602
Austria	159	-	60	-	-	99	-
Belgium	546	-	61	485	-	-	-
Denmark	147	-	67	80	-	-	-
Finland	2,035	-	-	2,035	-	-	-
France	2,074	503	703	624	244	-	-
Ireland	29	-	29	-	-	-	-
Italy	1,054	374	83	449	-	-	148
Netherlands	450	185	59	206	-	-	-
Norway	715	-	485	230	-	-	-
Poland	569	569	-	-	-	-	-
Portugal	40	-	10	30	-	-	-
Spain	108	-	-	108	-	-	-
Sweden	1,090	-	-	1,013	-	-	77
Switzerland	357	-	138	219	-	-	-
United Kingdom, total	8,209	-	4,383	1,725	1,136	656	309
England	5,270	-	2,580	1,725	-	656	309
Scotland	74	-	74	-	-	-	-
Bermuda	1,010	-	-	-	1,010	-	-
Other United Kingdom	1,855	-	1,729	-	126	-	-
West Germany	1,606	-	262	-	-	1,322	22
Yugoslavia	200	-	-	154	-	-	46
Other Europe	25	-	-	25	-	-	-
Asia, total	2,450	88	13	2,170	-	25	154
Hong Kong	10	-	-	10	-	-	-
India	1,298	-	-	1,298	-	-	-
Japan	131	-	-	102	-	25	4
South Korea	88	88	-	-	-	-	-
Pakistan	150	-	-	-	-	-	150
Thailand	120	-	-	120	-	-	-
Other Asia	653	-	13	640	-	-	-
Near East, total	3,702	98	1,167	2,364	-	65	8
Egypt	98	98	-	-	-	-	-
Greece	160	-	160	-	-	-	-
Israel	3,444	-	1,007	2,364	-	65	8
Africa, total	22	-	-	22	-	-	-
Other Africa	22	-	-	22	-	-	-
Latin America, total	1,594	939	-	652	-	3	-
Argentina	187	107	-	80	-	-	-
Chile	165	-	-	162	-	3	-
Costa Rica	333	333	-	-	-	-	-
Mexico	611	499	-	112	-	-	-
Venezuela	9	-	-	9	-	-	-
Other Latin America	289	-	-	289	-	-	-
Australia	1,373	-	463	743	-	-	167
Canada	16,345	-	2,490	11,309	175	2,316	55
New Zealand	654	-	484	170	-	-	-
International Organizations	1,886	-	-	1,886	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-129. Federal obligations for research and development to foreign performers and amount supported through the special foreign currency program, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989		Estimates			
			1990		1991	
	Total	Special foreign currency program	Total	Special foreign currency program	Total	Special foreign currency program
Total, all agencies	919,381	3,013	357,447	11,534	324,722	10,291
Departments						
Department of Agriculture, total	4,292	1,000	3,737	875	2,891	-
Agricultural Research Service	3,251	-	2,818	-	2,818	-
Federal Grain Inspection Service	-	-	-	-	25	-
Forest Service	41	-	44	-	48	-
Office of International Cooperation and Development	1,000	1,000	875	875	-	-
Department of Commerce, total	110	-	113	-	116	-
National Institute of Standards & Technology	85	-	88	-	91	-
National Oceanic & Atmospheric Administration	25	-	25	-	25	-
Department of Defense, total	769,532	-	230,566	8,803	172,043	7,706
Department of the Army	18,393	-	13,778	-	12,918	-
Department of the Navy	58,478	-	81,185	-	69,056	-
Department of the Air Force	632,192	-	8,803	8,803	7,706	7,706
Defense agencies	28,098	-	80,054	-	37,196	-
Test & Eval, Dpty Under Secretary Def	32,371	-	46,746	-	45,167	-
Department of Education	100	-	-	-	-	-
Department of Energy	2,196	-	3,709	-	3,352	-
Department of Health and Human Services, total	48,642	2,013	55,845	1,856	59,050	2,585
Alcohol, Drug Abuse & Mental Health Administration	4,580	-	5,837	-	6,765	-
Health Care Financing Administration	405	-	500	-	360	-
Human Development Services	16	-	16	-	24	-
National Institutes of Health	43,301	1,863	49,442	1,806	51,701	2,535
Office of Assistant Secretary for Health	150	150	50	50	50	50
Social Security Administration	190	-	-	-	150	-
Department of the Interior, total	450	-	546	-	785	-
Mineral Management Service	450	-	546	-	785	-
Department of Justice, total	121	-	-	-	-	-
Office of Justice Programs	121	-	-	-	-	-
Department of State, total	5	-	5	-	5	-
Departmental funds	5	-	5	-	5	-
Department of Transportation, total	1,396	-	1,647	-	1,629	-
Federal Highway Administration	836	-	647	-	629	-
National Highway Traffic Safety Administration	560	-	1,000	-	1,000	-
Other agencies						
Agency for International Development	76,672	-	46,654	-	70,953	-
National Aeronautics and Space Administration	12,122	-	12,165	-	12,165	-
National Science Foundation	1,555	-	-	-	-	-
Nuclear Regulatory Commission	2,188	-	2,483	-	1,733	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-136. Federal obligations for basic research to foreign performers and amount supported through the special foreign currency program, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989		Estimates			
			1990		1991	
	Total	Special foreign currency program	Total	Special foreign currency program	Total	Special foreign currency program
Total, all agencies	47,439	2,547	49,618	6,404	51,635	6,416
Departments						
Department of Agriculture, total	2,756	1,000	2,397	875	1,522	-
Agricultural Research Service	1,756	-	1,522	-	1,522	-
Office of International Cooperation and Development	1,000	1,000	875	875	-	-
Department of Defense, total	10,957	-	11,436	4,124	12,316	4,465
Department of the Army	1,918	-	2,335	-	2,629	-
Department of the Navy	4,620	-	4,807	-	5,003	-
Department of the Air Force	4,222	-	4,124	4,124	4,465	4,465
Defense agencies	197	-	170	-	219	-
Department of Energy	715	-	962	-	843	-
Department of Health and Human Services, total	26,699	1,547	30,328	1,405	32,556	1,951
Alcohol, Drug Abuse & Mental Health Administration	1,302	-	1,477	-	1,631	-
National Institutes of Health	25,247	1,397	28,801	1,355	30,875	1,901
Office of Assistant Secretary for Health	150	150	50	50	50	50
Department of Justice, total	121	-	-	-	-	-
Office of Justice Programs	121	-	-	-	-	-
Other agencies						
Agency for International Development	150	-	-	-	-	-
National Aeronautics and Space Administration	4,486	-	4,495	-	4,398	-
National Science Foundation	1,555	-	-	-	-	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-131. Federal obligations for applied research to foreign performers and amount supported through the special foreign currency program, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989		Estimates			
			1990		1991	
	Total	Special foreign currency program	Total	Special foreign currency program	Total	Special foreign currency program
Total, all agencies	94,642	466	74,628	2,148	90,309	2,375
Departments						
Department of Agriculture, total	1,341	-	1,171	-	1,200	-
Agricultural Research Service	1,300	-	1,127	-	1,127	-
Federal Grain Inspection Service	-	-	-	-	25	-
Forest Service	41	-	44	-	48	-
Department of Commerce, total	110	-	113	-	116	-
National Institute of Standards & Technology	85	-	88	-	91	-
National Oceanic & Atmospheric Administration	25	-	25	-	25	-
Department of Defense, total	11,808	-	9,982	1,697	9,137	1,741
Department of the Army	7,300	-	5,535	-	4,465	-
Department of the Navy	450	-	35	-	35	-
Department of the Air Force	1,764	-	1,697	1,697	1,741	1,741
Defense agencies	2,294	-	2,715	-	2,896	-
Department of Education	100	-	-	-	-	-
Department of Energy	714	-	1,058	-	554	-
Department of Health and Human Services, total	17,395	466	20,231	451	21,110	634
Alcohol, Drug Abuse & Mental Health Administration	3,278	-	4,360	-	5,134	-
Health Care Financing Administration	405	-	500	-	360	-
Human Development Services	16	-	16	-	24	-
National Institutes of Health	13,506	466	15,355	451	15,442	634
Social Security Administration	190	-	-	-	150	-
Department of the Interior, total	450	-	546	-	785	-
Mineral Management Service	450	-	546	-	785	-
Department of State, total	5	-	5	-	5	-
Departmental funds	5	-	5	-	5	-
Department of Transportation, total	1,396	-	1,647	-	1,629	-
Federal Highway Administration	836	-	647	-	629	-
National Highway Traffic Safety Administration	560	-	1,000	-	1,000	-
Other agencies						
Agency for International Development	55,924	-	34,296	-	50,773	-
National Aeronautics and Space Administration	3,211	-	3,096	-	3,267	-
Nuclear Regulatory Commission	2,188	-	2,483	-	1,733	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-132. Federal obligations for development to foreign performers and amount supported through the special foreign currency program, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989		Estimates			
			1990		1991	
	Total	Special foreign currency program	Total	Special foreign currency program	Total	Special foreign currency program
Total, all agencies	777,300	-	233,201	2,982	182,778	1,500
Departments						
Department of Agriculture, total	195	-	169	-	169	-
Agricultural Research Service	195	-	169	-	169	-
Department of Defense, total	746,767	-	209,148	2,982	150,590	1,500
Department of the Army	9,175	-	5,908	-	5,824	-
Department of the Navy	53,408	-	76,343	-	64,018	-
Department of the Air Force	626,206	-	2,982	2,982	1,500	1,500
Defense agencies	25,607	-	77,169	-	34,081	-
Test & Eval, Dpty Under Secretary Def	32,371	-	46,746	-	45,167	-
Department of Energy	767	-	1,689	-	1,955	-
Department of Health and Human Services, total	4,548	-	5,286	-	5,384	-
National Institutes of Health	4,548	-	5,286	-	5,384	-
Other agencies						
Agency for International Development	20,598	-	12,335	-	20,180	-
National Aeronautics and Space Administration	4,425	-	4,574	-	4,500	-

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-133. Federal obligations for research, development, and R&D plant, by geographic division and State: fiscal year 1989

[Dollars in thousands]

Geographic division and State	Research, development and R&D plant	Research and development	R&D plant
Total	61,628,328	59,483,997	2,144,331
New England	4,078,469	4,019,101	59,368
Connecticut	598,099	596,735	1,364
Maine	67,826	67,707	119
Massachusetts	2,937,235	2,882,526	54,709
New Hampshire	98,145	97,962	183
Rhode Island	315,671	314,085	1,586
Vermont	61,493	60,086	1,407
Middle Atlantic	6,413,795	6,186,403	227,392
New Jersey	1,367,221	1,320,435	46,786
New York	3,005,665	2,904,096	101,569
Pennsylvania	2,040,909	1,961,872	79,037
East North Central	4,364,794	4,190,146	174,648
Illinois	1,003,978	909,126	94,852
Indiana	393,998	392,484	1,514
Michigan	690,718	686,166	4,552
Ohio	2,008,592	1,938,823	69,769
Wisconsin	267,508	263,547	3,961
West North Central	2,280,757	2,258,398	22,359
Iowa	197,126	190,923	6,203
Kansas	130,360	128,800	1,560
Minnesota	599,125	597,277	1,848
Missouri	1,245,585	1,241,935	3,650
Nebraska	54,007	51,223	2,784
North Dakota	39,293	33,250	6,043
South Dakota	15,261	14,990	271
South Atlantic	13,539,995	13,124,465	415,530
Delaware	32,084	31,881	203
District of Columbia	1,931,208	1,914,062	17,146
Florida	2,369,807	2,269,800	100,007
Georgia	403,334	392,499	10,835
Maryland	4,968,987	4,848,909	120,078
North Carolina	567,119	562,802	4,317
South Carolina	231,499	222,638	8,861
Virginia	2,905,274	2,777,882	127,392
West Virginia	130,683	103,992	26,691
East South Central	2,642,137	2,494,541	147,596
Alabama	1,693,965	1,646,749	47,216
Kentucky	73,511	73,039	472
Mississippi	239,800	198,730	41,070
Tennessee	634,861	576,023	58,838
West South Central	3,695,817	3,543,371	152,446
Arkansas	60,161	57,017	3,144
Louisiana	226,783	179,569	47,214
Oklahoma	122,028	117,557	4,471
Texas	3,286,845	3,189,228	97,617
Mountain	5,969,658	5,555,717	413,941
Arizona	519,297	501,188	18,109
Colorado	1,680,654	1,618,147	62,507
Idaho	207,912	195,904	12,008
Montana	36,451	36,234	217
Nevada	496,819	427,487	69,332
New Mexico	2,459,984	2,220,381	239,603
Utah	529,909	517,839	12,070
Wyoming	38,632	38,537	95
Pacific	18,535,549	18,022,790	512,759
Alaska	71,325	71,325	-
California	16,366,091	15,919,376	446,715
Hawaii	97,800	97,406	394
Oregon	198,557	168,436	30,121
Washington	1,801,776	1,766,247	35,529
Outlying areas	47,163	45,686	1,477
Offices abroad	60,194	43,379	16,815

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 1 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D and R&D plant obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-134. Federal obligations for research and development, by State and performer: fiscal year 1989

[Dollars in thousands]

State (in order of total Federal R&D obligations)	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	59,483,997	14,653,265	28,481,381	1,916,353	8,484,915	3,473,421	1,814,283	510,917	149,462
California	15,919,376	2,478,100	9,761,017	21,534	1,322,335	1,819,649	252,148	245,066	19,527
Maryland	4,848,909	3,011,860	1,269,868	14,447	479,618	251	68,533	585	3,747
Texas	3,189,228	464,111	2,203,669	-	441,299	-	75,294	-	4,855
New York	2,904,096	89,334	1,205,527	311,642	882,576	211,607	150,818	-	52,592
Massachusetts	2,882,526	401,091	1,150,995	11,308	626,050	195,836	419,725	70,866	6,655
Virginia	2,777,882	1,017,679	1,462,578	11,541	148,420	12,308	45,489	74,967	4,897
Florida	2,269,800	642,074	1,413,892	-	204,785	-	6,317	-	2,732
New Mexico	2,220,381	593,878	274,821	626,142	67,362	643,118	4,647	8,210	2,203
Pennsylvania	1,961,872	274,016	727,457	358,097	480,552	16,677	102,667	-	2,406
Ohio	1,938,823	1,055,523	608,679	-	226,561	-	46,013	-	2,047
District of Columbia	1,914,062	1,521,580	191,839	-	62,411	-	136,013	-	2,219
Washington	1,766,247	111,220	1,226,489	92,893	212,822	4	60,549	60,334	1,936
Alabama	1,646,749	568,243	936,666	-	120,043	-	20,350	-	1,447
Colorado	1,618,147	116,787	1,219,744	-	150,171	46,665	29,354	50,889	4,537
New Jersey	1,320,435	429,755	655,004	-	120,533	90,087	21,635	-	3,421
Missouri	1,241,935	58,176	1,017,041	-	149,041	-	16,793	-	884
Illinois	909,126	59,321	143,670	1,766	321,256	312,811	65,473	-	4,829
Michigan	686,166	71,349	335,814	-	246,324	-	31,704	-	975
Minnesota	597,277	31,036	390,120	-	132,087	-	42,918	-	1,116
Connecticut	596,735	37,810	356,997	-	187,959	-	12,531	-	1,438
Tennessee	576,023	135,383	42,698	256,743	113,906	12,300	14,142	-	851
North Carolina	562,802	59,738	175,524	-	289,332	-	36,241	-	1,967
Utah	517,839	66,414	334,556	-	113,771	-	2,362	-	736
Arizona	501,188	118,284	247,584	-	102,352	24,250	6,622	-	2,096
Nevada	427,487	77,198	336,532	-	12,392	-	889	-	476
Georgia	392,499	157,925	71,722	-	152,916	-	8,411	-	1,525
Indiana	392,484	74,520	190,792	-	122,718	-	3,331	-	1,123
Rhode Island	314,085	195,920	51,645	-	52,732	-	13,447	-	341
Wisconsin	263,547	26,945	51,241	-	178,947	-	4,870	-	1,544
South Carolina	222,638	59,660	9,641	104,465	38,429	2	9,800	-	641
Mississippi	198,730	130,448	32,115	-	32,660	-	2,720	-	787
Idaho	195,904	18,785	11,113	105,105	9,655	49,900	531	-	815
Iowa	190,923	20,447	47,943	667	101,974	17,590	1,767	-	535
Louisiana	179,569	36,410	24,692	-	114,831	-	1,488	-	2,148
Oregon	168,436	42,199	12,901	-	91,672	-	20,527	-	1,137
Kansas	128,800	9,034	50,580	-	37,134	-	1,797	-	255
Oklahoma	117,557	46,083	26,721	-	27,975	-	16,338	-	440
West Virginia	103,992	63,239	2,226	-	17,707	18,458	2,098	-	264
New Hampshire	97,962	21,510	39,793	-	36,296	-	97	-	266
Hawaii	97,406	36,400	11,330	-	41,328	-	7,071	-	1,277
Kentucky	73,039	31,159	3,533	-	35,293	-	1,942	-	1,112
Alaska	71,325	51,178	707	-	18,067	-	1,035	-	338
Maine	67,707	4,394	37,021	-	10,149	-	15,365	-	778
Vermont	60,086	4,404	23,608	-	29,086	-	2,639	-	349
Arkansas	57,017	25,071	12,514	-	18,047	-	1,128	-	257
Nebraska	51,223	22,074	1,471	-	25,080	-	2,126	-	472
Wyoming	38,537	8,519	100	-	8,931	-	20,858	-	129
Montana	36,234	20,877	3,743	-	10,096	-	1,077	-	441
North Dakota	33,250	20,217	346	-	11,557	-	665	-	465
Delaware	31,881	3,133	12,443	-	14,184	-	2,110	-	11
South Dakota	14,990	5,563	2,473	-	6,418	-	262	-	274
Outlying areas	45,686	10,036	5,752	-	25,370	1,908	1,471	-	1,149
Offices abroad	43,379	17,155	24,434	-	1,705	-	85	-	-

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-134A. Percent distribution of Federal obligations for research and development to each performer, by State: fiscal year 1989

State (in order of total Federal R&D obligations)	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
California	26.8	16.9	34.3	1.1	15.6	52.4	13.9	48.0	13.1
Maryland	8.2	20.6	4.5	.8	5.7	*	3.8	.1	2.5
Texas	5.4	3.2	7.7	-	5.2	-	4.2	-	3.2
New York	4.9	.6	4.2	16.3	10.4	6.1	8.3	-	35.2
Massachusetts	4.8	2.7	4.0	.6	7.4	5.6	23.1	13.9	4.5
Virginia	4.7	6.9	5.1	.6	1.7	.4	2.5	14.7	3.3
Florida	3.8	4.4	5.0	-	2.4	-	.3	-	1.8
New Mexico	3.7	4.1	1.0	32.7	.8	18.5	.3	1.6	1.5
Pennsylvania	3.3	1.9	2.6	18.7	5.7	.5	5.7	-	1.6
Ohio	3.3	7.2	2.1	-	2.7	-	2.5	-	1.4
District of Columbia	3.2	10.4	.7	-	.7	-	7.5	-	1.5
Washington	3.0	.8	4.3	4.8	2.5	*	3.3	11.8	1.3
Alabama	2.8	3.9	3.3	-	1.4	-	1.1	-	1.0
Colorado	2.7	.8	4.3	-	1.8	1.3	1.6	10.0	3.0
New Jersey	2.2	2.9	2.3	-	1.4	2.6	1.2	-	2.3
Missouri	2.1	.4	3.6	-	1.8	-	.9	-	.6
Illinois	1.5	.4	.5	.1	3.8	9.0	3.6	-	3.2
Michigan	1.2	.5	1.2	-	2.9	-	1.7	-	.7
Minnesota	1.0	.2	1.4	-	1.6	-	2.4	-	.7
Connecticut	1.0	.3	1.3	-	2.2	-	.7	-	1.0
Tennessee	1.0	.9	.1	13.4	1.3	.4	.8	-	.6
North Carolina	.9	.4	.6	-	3.4	-	2.0	-	1.3
Utah	.9	.5	1.2	-	1.3	-	.1	-	.5
Arizona	.8	.8	.9	-	1.2	.7	.4	-	1.4
Nevada	.7	.5	1.2	-	.1	-	*	-	.3
Georgia	.7	1.1	.3	-	1.8	-	.5	-	1.0
Indiana	.7	.5	.7	-	1.4	-	.2	-	.8
Rhode Island	.5	1.3	.2	-	.6	-	.7	-	.2
Wisconsin	.4	.2	.2	-	2.1	-	.3	-	1.0
South Carolina	.4	.4	*	5.5	.5	*	.5	-	.4
Mississippi	.3	.9	.1	-	.4	-	.1	-	.5
Idaho	.3	.1	*	5.5	.1	1.4	*	-	.5
Iowa	.3	.1	.2	*	1.2	.5	.1	-	.4
Louisiana	.3	.2	.1	-	1.4	-	.1	-	1.4
Oregon	.3	.3	*	-	1.1	-	1.1	-	.8
Kansas	.2	.1	.3	-	.4	-	.1	-	.2
Oklahoma	.2	.3	.1	-	.3	-	.9	-	.3
West Virginia	.2	.4	*	-	.2	.5	.1	-	.2
New Hampshire	.2	.1	.1	-	.4	-	*	-	.2
Hawaii	.2	.2	*	-	.5	-	.4	-	.9
Kentucky	.1	.2	*	-	.4	-	.1	-	.7
Alaska	.1	.3	*	-	.2	-	.1	-	.2
Maine	.1	*	.1	-	.1	-	.8	-	.5
Vermont	.1	*	.1	-	.3	-	.1	-	.2
Arkansas	.1	.2	*	-	.2	-	.1	-	.2
Nebraska	.1	.2	*	-	.3	-	.1	-	.3
Wyoming	.1	.1	*	-	.1	-	1.1	-	.1
Montana	.1	.1	*	-	.1	-	.1	-	.3
North Dakota	.1	.1	*	-	.1	-	*	-	.3
Delaware	.1	*	*	-	.2	-	.1	-	*
South Dakota	*	*	*	-	.1	-	*	-	.2
Outlying areas	.1	.1	*	-	.3	.1	.1	-	.9
Offices abroad	.1	.1	.1	-	*	-	*	-	-

* Percentage less than .05%.

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-134B. Percent distribution of Federal obligations for research and development to each State, by performer: fiscal year 1989

State (in order of total Federal R&D obligations)	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	100.0%	24.6%	47.9%	3.2%	14.3%	5.8%	3.1%	0.9%	0.3%
California	100.0	15.6	61.3	.1	8.3	11.4	1.6	1.5	.1
Maryland	100.0	62.1	26.2	.3	9.9	*	1.4	*	.1
Texas	100.0	14.6	69.1	-	13.8	-	2.4	-	.2
New York	100.0	3.1	41.5	10.7	30.4	7.3	5.2	-	1.8
Massachusetts	100.0	13.9	39.9	.4	21.7	6.8	14.6	2.5	.2
Virginia	100.0	36.6	52.7	.4	5.3	.4	1.6	2.7	.2
Florida	100.0	28.3	62.3	-	9.0	-	.3	-	.1
New Mexico	100.0	26.7	12.4	28.2	3.0	29.0	.2	.4	.1
Pennsylvania	100.0	14.0	37.1	18.3	24.5	.9	5.2	-	.1
Ohio	100.0	54.4	31.4	-	11.7	-	2.4	-	.1
District of Columbia	100.0	79.5	10.0	-	3.3	-	7.1	-	.1
Washington	100.0	6.3	69.4	5.3	12.0	*	3.4	3.4	.1
Alabama	100.0	34.5	56.9	-	7.3	-	1.2	-	.1
Colorado	100.0	7.2	75.4	-	9.3	2.9	1.8	3.1	.3
New Jersey	100.0	32.5	49.6	-	9.1	6.8	1.6	-	.3
Missouri	100.0	4.7	81.9	-	12.0	-	1.4	-	.1
Illinois	100.0	6.5	15.8	.2	35.3	34.4	7.2	-	.5
Michigan	100.0	10.4	48.9	-	35.9	-	4.6	-	.1
Minnesota	100.0	5.2	65.3	-	22.1	-	7.2	-	.2
Connecticut	100.0	6.3	59.8	-	31.5	-	2.1	-	.2
Tennessee	100.0	23.5	7.4	44.6	19.8	2.1	2.5	-	.1
North Carolina	100.0	10.6	31.2	-	51.4	-	6.4	-	.3
Utah	100.0	12.8	64.6	-	22.0	-	.5	-	.1
Arizona	100.0	23.6	49.4	-	20.4	4.8	1.3	-	.4
Nevada	100.0	18.1	78.7	-	2.9	-	.2	-	.1
Georgia	100.0	40.2	18.3	-	39.0	-	2.1	-	.4
Indiana	100.0	19.0	48.6	-	31.3	-	.8	-	.3
Rhode Island	100.0	62.4	16.4	-	16.8	-	4.3	-	.1
Wisconsin	100.0	10.2	19.4	-	67.9	-	1.8	-	.6
South Carolina	100.0	26.8	4.3	46.9	17.3	*	4.4	-	.3
Mississippi	100.0	65.6	16.2	-	16.4	-	1.4	-	.4
Idaho	100.0	9.6	5.7	53.7	4.9	25.5	.3	-	.4
Iowa	100.0	10.7	25.1	.3	53.4	9.2	.9	-	.3
Louisiana	100.0	20.3	13.8	-	63.9	-	.8	-	1.2
Oregon	100.0	25.1	7.7	-	54.4	-	12.2	-	.7
Kansas	100.0	7.0	62.6	-	28.8	-	1.4	-	.2
Oklahoma	100.0	39.2	22.7	-	23.8	-	13.9	-	.4
West Virginia	100.0	60.8	2.1	-	17.0	17.7	2.0	-	.3
New Hampshire	100.0	22.0	40.6	-	37.1	-	.1	-	.3
Hawaii	100.0	37.4	11.6	-	42.4	-	7.3	-	1.3
Kentucky	100.0	42.7	4.8	-	48.3	-	2.7	-	1.5
Alaska	100.0	71.8	1.0	-	25.3	-	1.5	-	.5
Maine	100.0	6.5	54.7	-	15.0	-	22.7	-	1.1
Vermont	100.0	7.3	39.3	-	48.4	-	4.4	-	.6
Arkansas	100.0	44.0	21.9	-	31.7	-	2.0	-	.5
Nebraska	100.0	43.1	2.9	-	49.0	-	4.2	-	.9
Wyoming	100.0	22.1	.3	-	23.2	-	54.1	-	.3
Montana	100.0	57.6	10.3	-	27.9	-	3.0	-	1.2
North Dakota	100.0	60.8	1.0	-	34.8	-	2.0	-	1.4
Delaware	100.0	9.8	39.0	-	44.5	-	6.6	-	*
South Dakota	100.0	37.1	16.5	-	42.8	-	1.7	-	1.8
Outlying areas	100.0	22.0	12.6	-	55.5	4.2	3.2	-	2.5
Offices abroad	100.0	39.5	56.3	-	3.9	-	.2	-	-

* Percentage less than .05%.

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-135. Federal obligations for research and development, by State and agency: fiscal year 1989

[Dollars in thousands]

State (in order of total Federal R&D obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	Environmental Protection Agency	National Aeronautics & Space Admin	National Science Foundation
Total	59,483,997	1,033,987	397,752	36,807,355	5,190,416	7,854,195	468,570	301,185	180,342	5,381,354	1,668,841
California	15,919,376	58,260	39,406	11,675,020	1,102,807	943,380	32,481	21,563	21,093	1,793,143	232,223
Maryland	4,848,909	88,281	142,448	2,249,975	46,949	1,733,453	12,686	17,708	18,784	508,549	30,076
Texas	3,189,228	52,370	1,356	2,195,874	44,177	291,953	5,564	7,534	13,957	529,173	47,270
New York	2,904,096	25,021	1,578	1,335,012	504,346	769,570	5,393	7,100	31,583	46,687	177,806
Massachusetts	2,882,526	16,740	9,596	1,870,819	70,937	633,441	4,369	43,137	23,566	65,712	144,209
Virginia	2,777,882	7,747	1,748	2,109,108	32,719	99,652	49,604	42,811	16,002	390,416	28,075
Florida	2,269,800	26,103	28,850	1,657,053	16,933	99,663	7,631	2,781	8,472	397,628	24,686
New Mexico	2,220,381	4,458	29	1,069,423	1,061,402	25,208	5,672	782	747	44,881	7,779
Pennsylvania	1,961,872	34,026	831	975,954	354,575	367,809	34,623	10,950	12,649	99,205	71,250
Ohio	1,938,823	13,503	522	1,352,555	33,124	180,129	2,924	6,572	30,402	293,796	25,296
District of Columbia	1,914,062	115,345	27,017	1,047,425	105,772	152,925	22,589	32,380	19,660	192,645	198,304
Washington	1,766,247	22,238	31,125	1,278,298	155,400	207,553	17,538	785	5,464	16,550	31,296
Alabama	1,646,749	11,322	794	1,026,350	12,580	91,808	7,173	618	6,503	483,323	6,269
Colorado	1,618,147	22,719	43,857	1,153,556	65,434	95,543	29,926	10,671	5,440	114,761	76,240
New Jersey	1,320,435	4,178	11,187	909,010	105 490	76,960	4,517	54,841	15,806	67,744	70,702
Missouri	1,241,935	13,515	511	1,042,674	3,365	136,481	10,693	736	3,207	18,963	11,790
Illinois	909,126	33,342	679	191,673	365,414	203,256	4,512	3,035	3,973	16,512	86,730
Michigan	686,166	16,605	645	377,944	32,827	173,993	6,209	3,625	11,874	19,260	43,184
Minnesota	597,277	17,791	337	383,245	4,397	137,977	13,173	66	14,374	6,080	19,837
Connecticut	596,735	3,987	1,585	341,580	22,592	159,806	2,318	12,193	2,730	33,512	16,432
Tennessee	576,023	7,233	765	146,530	271,443	102,336	3,183	818	8,713	24,874	10,128
North Carolina	562,802	25,787	1,206	197,223	7,697	243,615	3,856	4,257	35,630	10,873	28,658
Utah	517,839	9,043	283	415,779	6,416	50,973	12,646	76	1,191	9,770	11,662
Arizona	501,188	14,021	84	351,843	3,130	51,774	10,605	1,423	1,003	24,925	42,380
Nevada	427,487	2,148	362	78,038	317,883	4,722	12,717	62	7,698	1,026	2,831
Georgia	392,499	40,137	550	134,960	15,116	144,105	5,051	2,489	7,790	26,726	15,575
Indiana	392,484	10,944	97	252,629	18,603	61,180	2,967	1,151	1,508	7,909	35,496
Rhode Island	314,085	1,178	1,881	253,034	2,650	29,794	2,230	525	6,445	1,661	14,687
Wisconsin	263,547	25,925	1,686	23,362	15,453	117,387	8,280	1,645	2,047	40,319	27,443
South Carolina	222,638	12,298	299	69,401	106,678	21,471	3,457	102	305	2,309	6,318
Mississippi	198,730	39,059	2,536	98,389	4,515	11,023	4,045	324	3,298	33,427	2,114
Idaho	195,904	12,632	20	15,387	150,626	1,483	11,527	29	576	2,130	1,494
Iowa	190,923	30,043	2,692	51,498	18,627	64,142	2,401	181	960	13,350	7,029
Louisiana	179,569	27,464	1,021	78,602	2,586	49,683	6,552	536	1,768	4,861	6,496
Oregon	168,436	23,557	1,193	15,885	8,328	67,337	18,142	420	9,254	6,081	18,239
Kansas	128,800	8,990	-	81,981	2,348	22,541	2,677	620	2,193	2,442	5,010
Oklahoma	117,557	14,008	4,043	36,445	15,000	16,400	3,694	4,529	11,737	6,046	5,647
West Virginia	103,992	16,364	200	1,214	43,315	12,953	9,744	166	551	323	19,162
New Hampshire	97,962	3,372	367	54,706	977	21,101	2,274	482	507	8,387	5,789
Hawaii	97,406	15,714	4,700	30,556	6,004	14,007	8,544	86	-	5,697	12,098
Kentucky	73,039	9,241	12	13,572	2,225	38,955	2,803	596	751	1,539	3,345
Alaska	71,325	4,711	27,955	5,218	937	1,668	17,519	132	206	3,365	9,614
Maine	67,707	3,471	425	39,907	132	14,944	2,820	90	1,959	751	3,208
Vermont	60,086	4,410	57	24,486	314	26,444	1,865	43	437	117	1,913
Arkansas	57,017	9,171	1	12,682	1,177	29,193	3,161	150	399	277	806
Nebraska	51,223	17,218	-	9,750	862	17,419	2,602	82	7	714	2,569
Wyoming	38,537	5,072	-	1,513	21,340	1,292	4,909	58	285	188	3,880
Montana	36,234	10,231	31	3,404	1,357	12,752	4,365	108	821	463	2,702
North Dakota	33,250	21,155	361	419	2,170	2,383	4,923	38	553	111	1,137
Delaware	31,881	3,347	497	13,264	1,012	4,172	1,896	11	389	1,345	5,948
South Dakota	14,990	4,728	86	103	115	1,565	5,597	50	30	605	2,111
Outlying areas	45,686	10,631	211	13,276	125	14,821	1,883	18	620	203	3,898
Offices abroad	43,379	3,133	30	39,751	-	-	40	-	425	-	-

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-135A. Percent distribution of Federal obligations for research and development of each agency, by State: fiscal year 1989

State (in order of total Federal R&D obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	Environmental Protection Agency	National Aeronautics & Space Admin	National Science Foundation
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
California	26.8	5.6	9.9	31.7	21.2	12.0	6.9	7.2	5.5	33.3	13.9
Maryland	8.2	8.5	35.8	6.1	.9	22.1	2.7	5.9	4.9	9.5	1.8
Texas	5.4	5.1	.3	6.0	.9	3.7	1.2	2.5	3.7	9.8	2.8
New York	4.9	2.4	.4	3.6	9.7	9.8	1.2	2.4	8.3	.9	10.7
Massachusetts	4.8	1.6	2.4	5.1	1.4	8.1	.9	14.3	6.2	1.2	8.6
Virginia	4.7	.7	.4	5.7	.6	1.3	10.6	14.2	4.2	7.3	1.7
Florida	3.8	2.5	7.3	4.5	.3	1.3	1.6	.9	2.2	7.4	1.5
New Mexico	3.7	.4	*	2.9	20.4	.3	1.2	.3	.2	.8	.5
Pennsylvania	3.3	3.3	.2	2.7	6.8	4.7	7.4	3.6	3.3	1.8	4.3
Ohio	3.3	1.3	.1	3.7	.6	2.3	.6	2.2	8.0	5.5	1.5
District of Columbia	3.2	11.2	6.8	2.8	2.0	1.9	4.8	10.8	5.2	3.6	11.9
Washington	3.0	2.2	7.8	3.5	3.0	2.6	3.7	.3	1.4	.3	1.9
Alabama	2.8	1.1	.2	2.8	.2	1.2	1.5	.2	1.7	9.0	.4
Colorado	2.7	2.2	11.0	3.1	1.3	1.2	6.4	3.5	1.4	2.1	4.6
New Jersey	2.2	.4	2.8	2.5	2.0	1.0	1.0	18.2	4.2	1.3	4.2
Missouri	2.1	1.3	.1	2.8	.1	1.7	2.3	.2	.8	.4	.7
Illinois	1.5	3.2	.2	.5	7.0	2.6	1.0	1.0	1.0	.3	5.2
Michigan	1.2	1.6	.2	1.0	.6	2.2	1.3	1.2	3.1	.4	2.6
Minnesota	1.0	1.7	.1	1.0	.1	1.8	2.8	*	3.8	.1	1.2
Connecticut	1.0	.4	.4	.9	.4	2.0	.5	4.0	.7	.6	1.0
Tennessee	1.0	.7	.2	.4	5.2	1.3	.7	.3	2.3	.5	.6
North Carolina	.9	2.5	.3	.5	.1	3.1	.8	1.4	10.4	.2	1.7
Utah	.9	.9	.1	1.1	.1	.6	2.7	*	.3	.2	.7
Arizona	.8	1.4	*	1.0	.1	.7	2.3	.5	.3	.5	2.5
Nevada	.7	.2	.1	.2	6.1	.1	2.7	*	2.0	*	.2
Georgia	.7	3.9	.1	.4	.3	1.8	1.1	.8	2.0	.5	.9
Indiana	.7	1.1	*	.7	.4	.8	.6	.4	.4	.1	2.1
Rhode Island	.5	.1	.5	.7	.1	.4	.5	.2	1.7	*	.9
Wisconsin	.4	2.5	.4	.1	.3	1.5	1.8	.5	.5	.7	1.6
South Carolina	.4	1.2	.1	.2	2.1	.3	.7	*	.1	*	.4
Mississippi	.3	3.8	.6	.3	.1	.1	.9	.1	.9	.6	.1
Idaho	.3	1.2	*	*	2.9	*	2.5	*	.2	*	.1
Iowa	.3	2.9	.7	.1	.4	.8	.5	.1	.3	.2	.4
Louisiana	.3	2.7	.3	.2	*	.6	1.4	.2	.5	.1	.4
Oregon	.3	2.3	.3	*	.2	.9	3.9	.1	2.4	.1	1.1
Kansas	.2	.9	-	.2	*	.3	.6	.2	.6	*	.3
Oklahoma	.2	1.4	1.0	.1	.3	.2	.8	1.5	3.1	.1	.3
West Virginia	.2	1.6	.1	*	.8	.2	2.1	.1	.1	*	1.1
New Hampshire	.2	.3	.1	.1	*	.3	.5	.2	.1	.2	.3
Hawaii	.2	1.5	1.2	.1	.1	.2	1.8	*	-	.1	.7
Kentucky	.1	.9	*	*	*	.5	.6	.2	.2	*	.2
Alaska	.1	.5	7.0	*	*	*	3.7	*	.1	.1	.6
Maine	.1	.3	.1	.1	*	.2	.6	*	.5	*	.2
Vermont	.1	.4	*	.1	*	.3	.4	*	.1	*	.1
Arkansas	.1	.9	*	*	*	.4	.7	*	.1	*	*
Nebraska	.1	1.7	-	*	*	.2	.6	*	*	*	.2
Wyoming	.1	.5	-	*	.4	*	1.0	*	.1	*	.2
Montana	.1	1.0	*	*	*	.2	.9	*	.2	*	.2
North Dakota	.1	2.0	.1	*	*	*	1.1	*	.1	*	.1
Delaware	.1	.3	.1	*	*	.1	.4	*	.1	*	.4
South Dakota	*	.5	*	*	*	*	1.2	*	*	*	.1
Outlying areas	.1	1.0	.1	*	*	.2	.4	*	.2	*	.2
Offices abroad	.1	.3	*	.1	-	-	*	-	.1	-	-

* Percentage less than .05%.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-135B. Percent distribution of Federal obligations for research and development of each State, by agency: fiscal year 1989

State (in order of total Federal R&D obligations)	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	Environmental Protection Agency	National Aeronautics & Space Admin	National Science Foundation
Total	100.0%	1.7%	0.7%	61.9%	8.7%	13.2%	0.8%	0.5%	0.6%	9.0%	2.8%
California	100.0	.4	.2	73.3	6.9	5.9	.2	.1	.1	11.3	1.5
Maryland	100.0	1.8	2.9	46.4	1.0	35.7	.3	.4	.4	10.5	.6
Texas	100.0	1.6	*	68.9	1.4	9.2	.2	.2	.4	16.6	1.5
New York	100.0	.9	.1	46.0	17.4	24.3	.2	.2	1.1	1.6	6.1
Massachusetts	100.0	.6	.3	64.9	2.5	22.0	.2	1.5	.8	2.3	5.0
Virginia	100.0	.3	.1	75.9	1.2	4.6	1.8	1.5	.6	14.1	1.0
Florida	100.0	1.2	1.3	73.0	.7	9.4	.3	.1	.4	17.5	1.1
New Mexico	100.0	.2	*	48.2	47.8	1.7	.3	*	*	2.0	.4
Pennsylvania	100.0	1.7	*	49.7	18.1	16.7	1.8	.6	.6	5.1	3.6
Ohio	100.0	.7	*	69.8	1.7	9.3	.2	.3	1.6	15.2	1.3
District of Columbia	100.0	6.0	1.4	54.7	5.5	8.0	1.2	1.7	1.0	10.1	10.4
Washington	100.0	1.3	1.8	72.4	6.8	11.8	1.0	*	.3	.9	1.8
Alabama	100.0	.7	*	62.3	.8	5.6	.4	*	.4	29.4	.4
Colorado	100.0	1.4	2.7	71.3	4.0	5.9	1.8	.7	.3	7.1	4.7
New Jersey	100.0	.3	.8	68.8	8.0	5.8	.3	4.2	1.2	5.1	5.4
Missouri	100.0	1.1	*	84.0	.3	11.0	.9	.1	.3	1.5	.9
Illinois	100.0	3.7	.1	21.1	40.2	22.4	.5	.3	.4	1.8	9.5
Michigan	100.0	2.4	.1	55.1	4.8	25.4	.9	.5	1.7	2.8	6.3
Minnesota	100.0	3.0	.1	64.2	.7	23.1	2.2	*	2.4	1.0	3.3
Connecticut	100.0	.7	.3	57.2	3.8	26.8	.4	2.0	.5	5.6	2.8
Tennessee	100.0	1.3	.1	25.4	47.1	17.8	.6	.1	1.5	4.3	1.8
North Carolina	100.0	4.6	.2	35.0	1.4	43.3	.7	.8	7.0	1.9	5.1
Utah	100.0	1.7	.1	80.3	1.2	9.8	2.4	*	.2	1.9	2.3
Arizona	100.0	2.8	*	70.2	.6	10.3	2.1	.3	.2	5.0	8.5
Nevada	100.0	.5	.1	18.3	74.4	1.1	3.0	*	1.8	.2	.7
Georgia	100.0	10.2	.1	34.4	3.9	36.7	1.3	.6	2.0	6.6	4.0
Indiana	100.0	2.8	*	64.4	4.7	15.6	.8	.3	.4	2.0	9.0
Rhode Island	100.0	.4	.6	80.6	.8	9.5	.7	.2	2.1	.5	4.7
Wisconsin	100.0	9.8	.6	8.9	5.9	44.5	3.1	.6	.8	15.3	10.4
South Carolina	100.0	5.5	.1	31.2	47.9	9.6	1.6	*	.1	1.0	2.8
Mississippi	100.0	19.7	1.3	49.5	2.3	5.5	2.0	.2	1.7	16.8	1.1
Idaho	100.0	6.4	*	7.9	76.9	.8	5.9	*	.3	1.1	.8
Iowa	100.0	15.7	1.4	27.0	9.8	33.6	1.3	.1	.5	7.0	3.7
Louisiana	100.0	15.3	.6	43.8	1.4	27.7	3.6	.3	1.0	2.7	3.6
Oregon	100.0	14.0	.7	9.4	4.9	40.0	10.8	.2	5.5	3.6	10.8
Kansas	100.0	7.0	-	63.6	1.8	17.5	2.1	.5	1.7	1.9	3.9
Oklahoma	100.0	11.9	3.4	31.0	12.8	14.0	3.1	3.9	10.0	5.1	4.8
West Virginia	100.0	15.7	.2	1.2	41.7	12.5	9.4	.2	.5	.3	18.4
New Hampshire	100.0	3.4	.4	55.8	1.0	21.5	2.3	.5	.5	8.6	5.9
Hawaii	100.0	16.1	4.8	31.4	6.2	14.4	8.8	.1	-	5.8	12.4
Kentucky	100.0	12.7	*	18.6	3.0	53.3	3.8	.8	1.0	2.1	4.6
Alaska	100.0	6.6	39.2	7.3	1.3	2.3	24.6	.2	.3	4.7	13.5
Maine	100.0	5.1	.6	58.9	.2	22.1	4.2	.1	2.9	1.1	4.7
Vermont	100.0	7.3	.1	40.6	.5	44.0	3.1	.1	.7	.2	3.2
Arkansas	100.0	16.1	*	22.2	2.1	51.2	5.5	.3	.7	.5	1.4
Nebraska	100.0	33.6	-	19.0	1.7	34.0	5.1	.2	*	1.4	5.0
Wyoming	100.0	13.2	-	3.9	55.4	3.4	12.7	.2	.7	.5	10.1
Montana	100.0	28.2	.1	9.4	3.7	35.2	12.0	.3	2.3	1.3	7.5
North Dakota	100.0	63.6	1.1	1.3	6.5	7.2	14.8	.1	1.7	.3	3.4
Delaware	100.0	10.5	1.6	41.6	3.2	13.1	5.9	*	1.2	4.2	18.7
South Dakota	100.0	31.5	.6	.7	.8	10.4	37.3	.3	.2	4.0	14.1
Outlying areas	100.0	23.3	.5	29.1	.3	32.4	4.1	*	1.4	.4	8.5
Offices abroad	100.0	7.2	.1	91.6	-	-	.1	-	1.0	-	-

* Percentage less than .05%.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total									
Total	59,483,997	14,653,265	28,481,381	1,916,353	8,484,915	3,473,421	1,814,283	510,917	149,462
Department of Agriculture	1,033,987	688,955	5,854	-	327,800	523	9,109	-	1,746
Department of Commerce	397,752	324,600	22,314	-	42,940	107	2,011	-	5,780
Department of Defense	36,807,355	9,295,437	24,734,377	308,885	1,188,705	686,018	198,811	391,466	3,656
Department of Energy	5,190,416	248,116	650,559	1,587,728	453,732	2,033,256	108,071	107,154	1,800
Department of Health & Human Srvs	7,854,195	1,528,721	331,930	15,505	4,641,187	27,915	1,207,083	8,837	93,017
Department of the Interior	468,570	394,346	26,551	3,675	41,981	-	101	-	1,916
Department of Transportation	301,185	162,709	84,248	49	20,664	100	13,953	-	19,462
Environmental Protection Agency	380,342	111,199	142,516	-	80,528	162	31,091	-	14,846
National Aeronautics and Space Admin	5,381,354	1,733,436	2,425,921	-	433,665	630,070	149,406	3,083	5,773
National Science Foundation	1,668,841	165,746	57,111	511	1,253,713	95,270	94,647	377	1,466
New England									
Total	4,019,101	665,129	1,660,055	11,308	942,272	195,836	463,804	70,866	9,827
Department of Agriculture	33,158	17,690	29	-	14,414	-	39	-	986
Department of Commerce	13,911	6,216	208	-	5,676	-	1,685	-	126
Department of Defense	2,584,532	569,618	1,521,659	11,308	141,758	195,836	73,487	70,866	-
Department of Energy	97,602	10	22,763	-	73,668	-	1,161	-	-
Department of Health & Human Srvs	885,530	360	43,308	-	485,728	-	350,486	-	5,648
Department of the Interior	15,876	13,816	-	-	2,022	-	6	-	32
Department of Transportation	56,470	50,641	4,599	-	247	-	94	-	889
Environmental Protection Agency	35,644	5,371	12,782	-	8,617	-	6,776	-	2,098
National Aeronautics and Space Admin	110,140	928	51,426	-	35,332	-	22,454	-	-
National Science Foundation	186,238	479	3,285	-	174,810	-	7,616	-	48
Connecticut									
Total	596,735	37,810	356,997	-	187,959	-	12,531	-	1,438
Department of Agriculture	3,987	1,581	-	-	1,585	-	4	-	817
Department of Commerce	1,585	-	-	-	1,459	-	-	-	126
Department of Defense	341,580	25,408	305,764	-	10,408	-	-	-	-
Department of Energy	22,592	-	12,540	-	10,047	-	5	-	-
Department of Health & Human Srvs	159,806	30	2,130	-	146,808	-	10,778	-	60
Department of the Interior	2,318	2,207	-	-	105	-	6	-	-
Department of Transportation	12,193	8,584	3,322	-	-	-	-	-	287
Environmental Protection Agency	2,730	-	969	-	947	-	714	-	100
National Aeronautics and Space Admin	33,512	-	31,694	-	1,120	-	698	-	-
National Science Foundation	16,432	-	578	-	15,480	-	326	-	48
Maine									
Total	67,707	4,394	37,021	-	10,149	-	15,365	-	778
Department of Agriculture	3,471	610	19	-	2,798	-	4	-	40
Department of Commerce	425	20	-	-	405	-	-	-	-
Department of Defense	39,907	1,230	35,481	-	2,479	-	717	-	-
Department of Energy	132	-	-	-	-	-	132	-	-
Department of Health & Human Srvs	14,944	-	186	-	1,431	-	12,771	-	556
Department of the Interior	2,820	2,534	-	-	274	-	-	-	12
Department of Transportation	90	-	-	-	20	-	-	-	70
Environmental Protection Agency	1,959	-	1,053	-	715	-	91	-	100
National Aeronautics and Space Admin	751	-	53	-	369	-	329	-	-
National Science Foundation	3,208	-	229	-	1,658	-	1,321	-	-
Massachusetts									
Total	2,882,526	401,091	1,150,995	11,308	626,050	195,836	419,725	70,866	6,655
Department of Agriculture	16,740	12,603	10	-	4,007	-	6	-	114
Department of Commerce	9,596	6,139	208	-	1,564	-	1,685	-	-
Department of Defense	1,870,819	336,263	1,071,426	11,308	112,469	195,836	72,651	70,866	-
Department of Energy	70,937	10	10,223	-	59,690	-	1,014	-	-
Department of Health & Human Srvs	633,441	330	38,976	-	278,000	-	311,431	-	4,704
Department of the Interior	4,369	3,526	-	-	843	-	-	-	-
Department of Transportation	43,137	41,273	1,122	-	227	-	94	-	421
Environmental Protection Agency	23,566	-	10,760	-	5,466	-	5,924	-	1,416
National Aeronautics and Space Admin	65,712	902	15,981	-	27,431	-	21,398	-	-
National Science Foundation	144,209	45	2,289	-	136,353	-	5,522	-	-
New Hampshire									
Total	97,962	21,510	39,793	-	36,296	-	97	-	266
Department of Agriculture	3,372	1,537	-	-	1,815	-	20	-	-
Department of Commerce	367	-	-	-	367	-	-	-	-
Department of Defense	54,706	16,994	35,084	-	2,628	-	-	-	-
Department of Energy	977	-	-	-	977	-	-	-	-
Department of Health & Human Srvs	21,101	-	1,264	-	19,571	-	77	-	189
Department of the Interior	2,274	2,069	-	-	185	-	-	-	20
Department of Transportation	482	450	5	-	-	-	-	-	27
Environmental Protection Agency	507	-	-	-	477	-	-	-	30
National Aeronautics and Space Admin	8,387	26	3,301	-	5,060	-	-	-	-
National Science Foundation	5,789	434	139	-	5,216	-	-	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Rhode Island									
Total	314,085	195,920	51,645	-	52,732	-	13,447	-	341
Department of Agriculture	1,178	-	-	-	1,173	-	5	-	-
Department of Commerce	1,881	-	-	-	1,881	-	-	-	-
Department of Defense	253,034	188,495	50,918	-	13,502	-	119	-	-
Department of Energy	2,650	-	-	-	2,640	-	10	-	-
Department of Health & Human Srvs	29,794	-	297	-	16,660	-	12,837	-	-
Department of the Interior	2,230	1,720	-	-	510	-	-	-	-
Department of Transportation	525	334	150	-	-	-	-	-	41
Environmental Protection Agency	6,445	5,371	-	-	774	-	-	-	300
National Aeronautics and Space Admin	1,661	-	280	-	1,352	-	29	-	-
National Science Foundation	14,687	-	-	-	14,240	-	447	-	-
Vermont									
Total	60,086	4,404	23,608	-	29,086	-	2,639	-	349
Department of Agriculture	4,410	1,359	-	-	3,036	-	-	-	15
Department of Commerce	57	57	-	-	-	-	-	-	-
Department of Defense	24,486	1,228	22,986	-	272	-	-	-	-
Department of Energy	314	-	-	-	314	-	-	-	-
Department of Health & Human Srvs	26,444	-	455	-	23,258	-	2,592	-	139
Department of the Interior	1,865	1,760	-	-	105	-	-	-	-
Department of Transportation	43	-	-	-	-	-	-	-	43
Environmental Protection Agency	437	-	-	-	238	-	47	-	152
National Aeronautics and Space Admin	117	-	117	-	-	-	-	-	-
National Science Foundation	1,913	-	50	-	1,863	-	-	-	-
Middle Atlantic									
Total	6,186,403	793,105	2,587,988	669,739	1,483,661	318,371	275,120	-	58,419
Department of Agriculture	63,225	36,609	1,576	-	23,581	350	907	-	2
Department of Commerce	13,596	9,132	131	-	4,226	107	-	-	-
Department of Defense	3,219,976	572,753	2,271,461	168,339	176,793	25,047	5,461	-	122
Department of Energy	964,411	51,719	60,429	501,400	69,674	279,578	1,611	-	-
Department of Health & Human Srvs	1,214,339	10	23,579	-	901,820	6,420	230,685	-	51,825
Department of the Interior	44,533	31,608	8,694	-	4,189	-	18	-	24
Department of Transportation	72,891	53,657	12,019	-	3,896	100	75	-	3,144
Environmental Protection Agency	60,038	30,658	11,758	-	12,206	-	2,500	-	2,916
National Aeronautics and Space Admin	213,636	6,759	166,878	-	35,825	-	4,050	-	124
National Science Foundation	319,758	-	31,463	-	251,451	6,769	29,813	-	262
New Jersey									
Total	1,320,435	429,755	655,004	-	120,533	90,087	21,635	-	3,421
Department of Agriculture	4,178	313	-	-	3,850	-	15	-	-
Department of Commerce	11,187	9,106	3	-	2,078	-	-	-	-
Department of Defense	909,010	352,028	544,825	-	11,369	21	727	-	40
Department of Energy	105,490	-	9,532	-	5,892	90,066	-	-	-
Department of Health & Human Srvs	76,960	-	6,630	-	60,548	-	8,529	-	1,253
Department of the Interior	4,517	3,894	-	-	623	-	-	-	-
Department of Transportation	54,841	53,657	116	-	58	-	-	-	1,010
Environmental Protection Agency	15,806	9,908	998	-	3,693	-	89	-	1,118
National Aeronautics and Space Admin	67,744	849	62,922	-	3,882	-	91	-	-
National Science Foundation	70,702	-	29,978	-	28,540	-	12,184	-	-
New York									
Total	2,904,096	89,334	1,205,527	311,642	882,576	211,607	150,818	-	52,592
Department of Agriculture	25,021	13,242	221	-	10,365	350	843	-	-
Department of Commerce	1,578	-	127	-	1,344	107	-	-	-
Department of Defense	1,335,012	34,734	1,161,269	56,142	69,913	8,349	4,523	-	82
Department of Energy	504,346	10,348	4,559	255,500	43,611	189,512	816	-	-
Department of Health & Human Srvs	769,570	10	12,390	-	568,415	6,420	132,534	-	49,801
Department of the Interior	5,393	4,628	76	-	689	-	-	-	-
Department of Transportation	7,100	-	4,983	-	1,095	100	75	-	847
Environmental Protection Agency	31,583	20,750	1,690	-	5,848	-	1,819	-	1,476
National Aeronautics and Space Admin	46,687	5,622	19,349	-	17,910	-	3,682	-	124
National Science Foundation	177,806	-	863	-	163,386	6,769	6,526	-	262
Pennsylvania									
Total	1,961,872	274,016	727,457	358,097	480,552	16,677	102,667	-	2,406
Department of Agriculture	34,026	23,254	1,355	-	9,366	-	49	-	2
Department of Commerce	831	26	1	-	804	-	-	-	-
Department of Defense	975,954	185,991	565,367	112,197	95,511	16,677	211	-	-
Department of Energy	354,575	41,371	46,338	245,900	20,171	-	795	-	-
Department of Health & Human Srvs	367,809	-	4,559	-	272,857	-	89,622	-	771
Department of the Interior	34,623	23,086	8,618	-	2,877	-	18	-	24
Department of Transportation	10,950	-	6,920	-	2,743	-	-	-	1,287
Environmental Protection Agency	12,649	-	9,070	-	2,665	-	592	-	322
National Aeronautics and Space Admin	99,205	288	84,607	-	14,033	-	277	-	-
National Science Foundation	71,250	-	622	-	59,525	-	11,103	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
East North Central									
Total	4,190,146	1,287,658	1,330,196	1,766	1,095,806	312,811	151,391	-	10,518
Department of Agriculture	100,319	54,039	147	-	45,581	-	542	-	10
Department of Commerce	3,629	568	114	-	2,501	-	164	-	282
Department of Defense	2,198,163	961,171	1,119,006	1,766	86,238	5,385	24,522	-	75
Department of Energy	465,421	16,339	49,417	-	63,518	305,706	28,941	-	1,500
Department of Health & Human Srvs	735,945	10,160	19,707	-	613,578	1,231	87,203	-	4,066
Department of the Interior	24,892	21,113	-	-	3,268	-	-	-	511
Department of Transportation	16,028	3,798	7,000	-	2,552	-	412	-	2,266
Environmental Protection Agency	49,804	23,996	12,359	-	10,995	-	1,247	-	1,207
National Aeronautics and Space Admin	377,796	196,360	118,960	-	56,507	110	5,352	-	507
National Science Foundation	218,149	114	3,486	-	211,068	379	3,008	-	94
Illinois									
Total	909,126	59,321	143,670	1,766	321,256	312,811	65,473	-	4,829
Department of Agriculture	33,342	23,170	-	-	9,939	-	233	-	-
Department of Commerce	679	-	5	-	316	-	76	-	282
Department of Defense	191,673	29,795	125,067	1,766	26,425	5,385	3,235	-	-
Department of Energy	365,414	304	8,724	-	20,916	305,706	28,264	-	1,500
Department of Health & Human Srvs	203,256	563	3,804	-	165,699	1,231	30,032	-	1,927
Department of the Interior	4,512	2,564	-	-	1,492	-	-	-	456
Department of Transportation	3,035	-	2,294	-	100	-	180	-	461
Environmental Protection Agency	3,973	-	789	-	2,183	-	820	-	181
National Aeronautics and Space Admin	16,512	2,811	2,838	-	10,685	110	68	-	-
National Science Foundation	86,730	114	149	-	83,501	379	2,565	-	22
Indiana									
Total	392,484	74,520	190,792	-	122,718	-	3,331	-	1,123
Department of Agriculture	10,944	3,003	-	-	7,748	-	193	-	-
Department of Commerce	97	-	-	-	97	-	-	-	-
Department of Defense	252,629	67,308	179,690	-	5,631	-	-	-	-
Department of Energy	18,603	-	7,681	-	10,922	-	-	-	-
Department of Health & Human Srvs	61,180	-	2,038	-	56,883	-	1,912	-	347
Department of the Interior	2,967	2,402	-	-	545	-	-	-	20
Department of Transportation	1,151	-	162	-	408	-	125	-	456
Environmental Protection Agency	1,508	-	-	-	1,198	-	10	-	300
National Aeronautics and Space Admin	7,909	1,807	1,123	-	3,897	-	1,082	-	-
National Science Foundation	35,496	-	98	-	35,389	-	9	-	-
Michigan									
Total	686,166	71,349	335,814	-	246,324	-	31,704	-	975
Department of Agriculture	16,605	4,908	-	-	11,697	-	-	-	-
Department of Commerce	645	-	-	-	575	-	70	-	-
Department of Defense	377,944	52,547	301,989	-	15,122	-	8,211	-	75
Department of Energy	32,827	-	20,258	-	12,470	-	99	-	-
Department of Health & Human Srvs	173,993	238	4,342	-	147,816	-	21,204	-	393
Department of the Interior	6,209	5,462	-	-	737	-	-	-	10
Department of Transportation	3,625	187	2,642	-	432	-	107	-	257
Environmental Protection Agency	11,874	7,039	548	-	3,962	-	85	-	240
National Aeronautics and Space Admin	19,260	968	3,949	-	12,706	-	1,635	-	-
National Science Foundation	43,184	-	2,086	-	40,805	-	293	-	-
Ohio									
Total	1,938,823	1,055,523	608,679	-	226,561	-	46,013	-	2,047
Department of Agriculture	13,503	5,339	-	-	8,048	-	116	-	-
Department of Commerce	522	-	109	-	395	-	18	-	-
Department of Defense	1,352,555	811,242	495,472	-	32,755	-	13,076	-	-
Department of Energy	33,124	16,035	11,219	-	5,292	-	578	-	-
Department of Health & Human Srvs	180,129	9,359	7,703	-	133,221	-	29,435	-	411
Department of the Interior	2,924	2,632	-	-	292	-	-	-	-
Department of Transportation	6,572	3,611	1,902	-	80	-	-	-	979
Environmental Protection Agency	30,402	16,957	10,310	-	2,653	-	332	-	150
National Aeronautics and Space Admin	293,796	190,348	81,232	-	19,392	-	2,317	-	507
National Science Foundation	25,296	-	732	-	24,423	-	141	-	-
Wisconsin									
Total	263,547	26,945	51,241	-	178,947	-	4,870	-	1,544
Department of Agriculture	25,925	17,619	147	-	8,149	-	-	-	10
Department of Commerce	1,686	568	-	-	1,118	-	-	-	-
Department of Defense	23,362	279	16,788	-	6,295	-	-	-	-
Department of Energy	15,453	-	1,535	-	13,918	-	-	-	-
Department of Health & Human Srvs	117,387	-	1,820	-	109,959	-	4,620	-	988
Department of the Interior	8,280	8,053	-	-	202	-	-	-	25
Department of Transportation	1,645	-	-	-	1,532	-	-	-	113
Environmental Protection Agency	2,047	-	712	-	999	-	-	-	336
National Aeronautics and Space Admin	40,319	426	29,818	-	9,825	-	250	-	-
National Science Foundation	27,443	-	421	-	26,950	-	-	-	72

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
West North Central									
Total	2,258,398	166,547	1,539,974	667	463,291	17,590	66,328	-	4,001
Department of Agriculture	113,440	67,558	80	-	45,575	30	189	-	8
Department of Commerce	3,987	517	28	-	3,156	-	-	-	286
Department of Defense	1,569,670	53,926	1,503,841	667	10,733	141	362	-	-
Department of Energy	31,882	338	670	-	13,455	17,419	-	-	-
Department of Health & Human Srvs	382,508	193	4,378	-	311,394	-	63,684	-	2,859
Department of the Interior	42,066	35,422	3,286	-	3,200	-	11	-	147
Department of Transportation	1,773	-	34	-	998	-	190	-	551
Environmental Protection Agency	21,324	7,806	7,654	-	5,595	-	119	-	150
National Aeronautics and Space Admin	42,265	787	19,650	-	21,564	-	264	-	-
National Science Foundation	49,483	-	353	-	47,621	-	1,509	-	-
Iowa									
Total	190,923	20,447	47,943	667	101,974	17,590	1,767	-	535
Department of Agriculture	30,043	17,740	-	-	12,273	30	-	-	-
Department of Commerce	2,692	-	-	-	2,692	-	-	-	-
Department of Defense	51,498	394	47,531	667	2,705	141	60	-	-
Department of Energy	18,627	-	-	-	1,208	17,419	-	-	-
Department of Health & Human Srvs	64,142	-	211	-	61,894	-	1,585	-	452
Department of the Interior	2,401	2,177	-	-	224	-	-	-	-
Department of Transportation	181	-	23	-	85	-	-	-	73
Environmental Protection Agency	960	-	-	-	850	-	100	-	10
National Aeronautics and Space Admin	13,350	136	178	-	13,016	-	20	-	-
National Science Foundation	7,029	-	-	-	7,027	-	2	-	-
Kansas									
Total	128,800	9,034	80,580	-	37,134	-	1,797	-	255
Department of Agriculture	8,990	3,942	-	-	5,020	-	20	-	8
Department of Defense	81,981	2,291	78,483	-	1,207	-	-	-	-
Department of Energy	2,346	-	-	-	2,346	-	-	-	-
Department of Health & Human Srvs	22,541	-	1,217	-	19,369	-	1,775	-	180
Department of the Interior	2,677	2,552	-	-	105	-	-	-	20
Department of Transportation	620	-	-	-	573	-	-	-	47
Environmental Protection Agency	2,193	-	-	-	2,191	-	2	-	-
National Aeronautics and Space Admin	2,442	249	880	-	1,313	-	-	-	-
National Science Foundation	5,010	-	-	-	5,010	-	-	-	-
Minnesota									
Total	597,277	31,036	390,120	-	132,087	-	42,918	-	1,116
Department of Agriculture	17,791	10,967	20	-	6,786	-	18	-	-
Department of Commerce	337	-	11	-	326	-	-	-	-
Department of Defense	383,245	586	378,807	-	3,630	-	222	-	-
Department of Energy	4,397	-	-	-	4,397	-	-	-	-
Department of Health & Human Srvs	137,977	-	1,866	-	92,822	-	42,263	-	1,026
Department of the Interior	13,173	11,377	1,047	-	715	-	-	-	34
Department of Transportation	66	-	11	-	-	-	-	-	55
Environmental Protection Agency	14,374	7,806	4,860	-	1,697	-	10	-	1
National Aeronautics and Space Admin	6,080	300	3,155	-	2,625	-	-	-	-
National Science Foundation	19,837	-	343	-	19,089	-	405	-	-
Missouri									
Total	1,241,935	58,176	1,017,041	-	149,041	-	16,793	-	884
Department of Agriculture	13,515	5,501	60	-	7,828	-	126	-	-
Department of Commerce	511	386	17	-	108	-	-	-	-
Department of Defense	1,042,674	42,794	997,946	-	1,934	-	-	-	-
Department of Energy	3,365	338	-	-	3,027	-	-	-	-
Department of Health & Human Srvs	136,481	52	783	-	120,013	-	15,124	-	509
Department of the Interior	10,693	9,070	129	-	1,434	-	-	-	60
Department of Transportation	736	-	-	-	340	-	190	-	206
Environmental Protection Agency	3,207	-	2,794	-	297	-	7	-	109
National Aeronautics and Space Admin	18,963	35	15,302	-	3,382	-	244	-	-
National Science Foundation	11,790	-	10	-	10,678	-	1,102	-	-
Nebraska									
Total	51,223	22,074	1,471	-	25,080	-	2,126	-	472
Department of Agriculture	17,218	11,781	-	-	5,412	-	25	-	-
Department of Defense	9,750	7,854	898	-	918	-	80	-	-
Department of Energy	862	-	450	-	412	-	-	-	-
Department of Health & Human Srvs	17,419	-	100	-	14,936	-	2,021	-	362
Department of the Interior	2,602	2,439	-	-	135	-	-	-	28
Department of Transportation	82	-	-	-	-	-	-	-	82
Environmental Protection Agency	7	-	-	-	7	-	-	-	-
National Aeronautics and Space Admin	714	-	23	-	691	-	-	-	-
National Science Foundation	2,569	-	-	-	2,569	-	-	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
North Dakota									
Total	33,250	20,217	346	-	11,557	-	665	-	465
Department of Agriculture	21,155	15,609	-	-	5,546	-	-	-	-
Department of Commerce	361	45	-	-	30	-	-	-	286
Department of Defense	419	4	76	-	339	-	-	-	-
Department of Energy	2,170	-	220	-	1,950	-	-	-	-
Department of Health & Human Srvs	2,383	-	50	-	1,532	-	665	-	136
Department of the Interior	4,923	4,559	-	-	359	-	-	-	5
Department of Transportation	38	-	-	-	-	-	-	-	38
Environmental Protection Agency	553	-	-	-	553	-	-	-	-
National Aeronautics and Space Admin	111	-	-	-	111	-	-	-	-
National Science Foundation	1,137	-	-	-	1,137	-	-	-	-
South Dakota									
Total	14,990	5,563	2,473	-	6,418	-	262	-	274
Department of Agriculture	4,728	2,018	-	-	2,710	-	-	-	-
Department of Commerce	86	86	-	-	-	-	-	-	-
Department of Defense	103	3	100	-	-	-	-	-	-
Department of Energy	115	-	-	-	115	-	-	-	-
Department of Health & Human Srvs	1,565	141	151	-	828	-	251	-	194
Department of the Interior	5,597	3,248	2,110	-	228	-	11	-	-
Department of Transportation	50	-	-	-	-	-	-	-	50
Environmental Protection Agency	30	-	-	-	-	-	-	-	30
National Aeronautics and Space Admin	605	67	112	-	426	-	-	-	-
National Science Foundation	2,111	-	-	-	2,111	-	-	-	-
South Atlantic									
Total	13,124,465	6,536,888	4,609,733	130,456	1,407,802	31,019	315,012	75,552	18,003
Department of Agriculture	335,409	271,455	3,768	-	58,081	-	1,943	-	162
Department of Commerce	202,815	186,229	4,282	-	10,149	-	11	-	2,144
Department of Defense	7,479,623	3,345,089	3,670,993	12,034	328,692	2,095	43,764	75,552	1,404
Department of Energy	376,191	153,775	25,645	104,465	55,905	10,467	25,934	-	-
Department of Health & Human Srvs	2,512,009	1,461,273	177,225	13,957	738,638	-	116,222	-	4,694
Department of the Interior	116,514	99,175	9,001	-	8,077	-	31	-	230
Department of Transportation	102,705	39,787	45,826	-	5,703	-	8,055	-	3,334
Environmental Protection Agency	111,583	15,223	63,655	-	17,553	-	13,807	-	1,345
National Aeronautics and Space Admin	1,530,814	800,943	605,996	-	52,583	-	67,164	-	4,128
National Science Foundation	356,802	163,939	3,342	-	132,421	18,457	38,081	-	562
Delaware									
Total	31,881	3,133	12,443	-	14,184	-	2,110	-	11
Department of Agriculture	3,347	1,313	100	-	1,934	-	-	-	-
Department of Commerce	497	-	-	-	497	-	-	-	-
Department of Defense	13,264	29	11,292	-	1,943	-	-	-	-
Department of Energy	1,012	-	187	-	585	-	240	-	-
Department of Health & Human Srvs	4,172	-	269	-	3,314	-	589	-	-
Department of the Interior	1,896	1,791	-	-	105	-	-	-	-
Department of Transportation	11	-	-	-	-	-	-	-	11
Environmental Protection Agency	389	-	-	-	389	-	-	-	-
National Aeronautics and Space Admin	1,345	-	371	-	583	-	391	-	-
National Science Foundation	5,948	-	224	-	4,834	-	890	-	-
Dist. of Columbia									
Total	1,914,062	1,521,580	191,839	-	62,411	-	136,013	-	2,219
Department of Agriculture	115,345	110,838	3,667	-	637	-	203	-	-
Department of Commerce	27,017	26,417	62	-	527	-	11	-	-
Department of Defense	1,047,425	900,403	127,235	-	5,069	-	14,548	-	170
Department of Energy	105,772	73,717	10,322	-	1,395	-	20,338	-	-
Department of Health & Human Srvs	152,925	58,988	8,751	-	42,729	-	41,059	-	1,398
Department of the Interior	22,589	21,848	636	-	105	-	-	-	-
Department of Transportation	32,360	17,970	13,637	-	415	-	335	-	23
Environmental Protection Agency	19,660	-	9,284	-	847	-	9,373	-	156
National Aeronautics and Space Admin	192,645	150,213	17,431	-	3,862	-	20,667	-	472
National Science Foundation	198,304	161,186	814	-	6,825	-	29,479	-	-
Florida									
Total	2,269,800	642,074	1,413,892	-	204,785	-	6,317	-	2,732
Department of Agriculture	26,103	17,078	-	-	8,805	-	220	-	-
Department of Commerce	28,850	24,012	242	-	3,652	-	-	-	944
Department of Defense	1,657,053	332,116	1,272,410	-	52,243	-	260	-	24
Department of Energy	16,933	-	-	-	16,933	-	-	-	-
Department of Health & Human Srvs	99,663	-	2,714	-	90,918	-	5,573	-	458
Department of the Interior	7,631	6,616	-	-	1,015	-	-	-	-
Department of Transportation	2,781	-	1,735	-	12	-	10	-	1,024
Environmental Protection Agency	8,472	5,438	1,234	-	1,518	-	-	-	282
National Aeronautics and Space Admin	397,628	256,809	135,457	-	5,362	-	-	-	-
National Science Foundation	24,686	5	100	-	24,327	-	254	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Georgia									
Total	392,499	157,925	71,722	-	152,916	-	8,411	-	1,525
Department of Agriculture	40,137	30,235	-	-	9,072	-	766	-	64
Department of Commerce	550	15	-	-	535	-	-	-	-
Department of Defense	134,960	35,455	67,373	-	31,949	-	133	-	50
Department of Energy	15,116	40	-	-	11,310	-	3,766	-	-
Department of Health & Human Srvs	144,105	61,804	1,236	-	77,848	-	2,955	-	262
Department of the Interior	5,051	4,261	-	-	790	-	-	-	-
Department of Transportation	2,489	2,047	-	-	85	-	-	-	357
Environmental Protection Agency	7,790	5,404	53	-	1,651	-	452	-	230
National Aeronautics and Space Admin	26,726	18,664	3,060	-	4,663	-	339	-	-
National Science Foundation	15,575	-	-	-	15,013	-	-	-	562
Maryland									
Total	4,848,909	3,011,860	1,269,868	14,447	479,618	251	68,533	585	3,747
Department of Agriculture	88,281	80,254	-	-	7,867	-	62	-	98
Department of Commerce	142,448	135,343	3,344	-	2,561	-	-	-	1,200
Department of Defense	2,249,975	1,198,865	846,505	490	197,299	251	5,130	585	850
Department of Energy	46,949	32,463	4,867	-	8,842	-	777	-	-
Department of Health & Human Srvs	1,733,453	1,334,618	142,476	13,957	216,030	-	25,925	-	447
Department of the Interior	12,686	12,384	-	-	285	-	-	-	17
Department of Transportation	17,708	5,757	9,931	-	873	-	270	-	877
Environmental Protection Agency	18,784	4,381	9,247	-	3,898	-	1,000	-	258
National Aeronautics and Space Admin	508,549	207,607	252,387	-	14,187	-	34,368	-	-
National Science Foundation	30,076	188	1,111	-	27,776	-	1,001	-	-
North Carolina									
Total	562,802	59,738	175,524	-	289,332	-	36,241	-	1,967
Department of Agriculture	25,787	13,663	1	-	12,123	-	-	-	-
Department of Commerce	1,206	150	-	-	1,056	-	-	-	-
Department of Defense	197,223	41,227	134,144	-	18,983	-	2,869	-	-
Department of Energy	7,697	36	956	-	6,269	-	436	-	-
Department of Health & Human Srvs	243,615	664	8,027	-	203,544	-	30,085	-	1,295
Department of the Interior	3,856	3,505	-	-	346	-	-	-	5
Department of Transportation	4,257	-	43	-	3,952	-	-	-	262
Environmental Protection Agency	39,630	-	30,750	-	7,679	-	796	-	405
National Aeronautics and Space Admin	10,873	478	1,299	-	7,108	-	1,988	-	-
National Science Foundation	28,658	15	304	-	28,272	-	67	-	-
South Carolina									
Total	222,638	59,660	9,641	104,465	38,429	2	9,800	-	641
Department of Agriculture	12,298	6,478	-	-	5,820	-	-	-	-
Department of Commerce	299	-	-	-	299	-	-	-	-
Department of Defense	69,401	48,375	8,748	-	2,573	2	9,703	-	-
Department of Energy	106,678	-	223	104,465	1,990	-	-	-	-
Department of Health & Human Srvs	21,471	25	501	-	20,400	-	97	-	448
Department of the Interior	3,457	3,203	-	-	163	-	-	-	91
Department of Transportation	102	-	-	-	-	-	-	-	102
Environmental Protection Agency	305	-	150	-	155	-	-	-	-
National Aeronautics and Space Admin	2,309	1,579	-	-	730	-	-	-	-
National Science Foundation	6,318	-	19	-	6,299	-	-	-	-
Virginia									
Total	2,777,882	1,017,679	1,462,578	11,544	148,420	12,308	45,489	74,967	4,897
Department of Agriculture	7,747	982	-	-	6,765	-	-	-	-
Department of Commerce	1,748	292	634	-	822	-	-	-	-
Department of Defense	2,109,108	788,418	1,202,813	11,544	18,094	1,841	11,121	74,967	310
Department of Energy	32,719	5,946	8,589	-	7,340	10,467	377	-	-
Department of Health & Human Srvs	99,652	99	12,091	-	78,086	-	9,062	-	314
Department of the Interior	49,604	39,829	8,365	-	1,274	-	31	-	105
Department of Transportation	42,811	14,013	20,480	-	366	-	7,440	-	512
Environmental Protection Agency	16,002	-	12,937	-	1,408	-	1,657	-	-
National Aeronautics and Space Admin	390,416	165,593	195,899	-	15,857	-	9,411	-	3,656
National Science Foundation	28,075	2,507	770	-	18,408	-	6,390	-	-
West Virginia									
Total	103,992	63,239	2,226	-	17,707	18,458	2,098	-	264
Department of Agriculture	16,364	10,614	-	-	5,058	-	692	-	-
Department of Commerce	200	-	-	-	200	-	-	-	-
Department of Defense	1,214	201	473	-	539	1	-	-	-
Department of Energy	43,315	41,573	501	-	1,241	-	-	-	-
Department of Health & Human Srvs	12,953	5,075	1,160	-	5,769	-	877	-	72
Department of the Interior	9,744	5,738	-	-	3,994	-	-	-	12
Department of Transportation	166	-	-	-	-	-	-	-	166
Environmental Protection Agency	551	-	-	-	8	-	529	-	14
National Aeronautics and Space Admin	323	-	92	-	231	-	-	-	-
National Science Foundation	19,162	38	-	-	667	18,457	-	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
East South Central									
Total	2,494,541	865,233	1,015,012	256,743	301,902	12,300	39,154	-	4,197
Department of Agriculture	66,855	32,255	94	-	33,283	143	987	-	93
Department of Commerce	4,107	2,175	884	-	532	-	-	-	516
Department of Defense	1,284,841	570,601	677,371	17,784	15,953	51	3,051	-	30
Department of Energy	290,772	13,494	15,271	236,851	13,737	10,894	525	-	-
Department of Health & Human Srvs	244,122	18,707	2,791	1,548	189,589	592	29,694	-	1,201
Department of the Interior	17,204	14,786	247	-	2,162	-	-	-	9
Department of Transportation	2,356	-	857	49	292	-	110	-	1,048
Environmental Protection Agency	19,265	7,061	8,086	-	1,919	-	934	-	1,265
National Aeronautics and Space Admin	543,163	206,154	309,362	-	23,798	-	3,849	-	-
National Science Foundation	21,856	-	49	511	20,637	620	4	-	35
Alabama									
Total	1,646,749	568,243	936,666	-	120,043	-	20,350	-	1,447
Department of Agriculture	11,322	3,329	-	-	7,968	-	25	-	-
Department of Commerce	794	6	-	-	272	-	-	-	516
Department of Defense	1,026,350	374,108	640,957	-	8,294	-	2,991	-	-
Department of Energy	12,589	-	10,393	-	1,751	-	445	-	-
Department of Health & Human Srvs	91,808	-	783	-	76,281	-	14,307	-	437
Department of the Interior	7,173	6,271	247	-	655	-	-	-	-
Department of Transportation	618	-	300	-	104	-	110	-	104
Environmental Protection Agency	6,503	4,292	444	-	451	-	926	-	390
National Aeronautics and Space Admin	483,323	180,237	283,542	-	18,002	-	1,542	-	-
National Science Foundation	6,269	-	-	-	6,265	-	4	-	-
Kentucky									
Total	73,039	31,159	3,533	-	35,293	-	1,942	-	1,112
Department of Agriculture	9,241	1,624	66	-	7,481	-	70	-	-
Department of Commerce	12	-	-	-	12	-	-	-	-
Department of Defense	13,572	10,314	1,995	-	1,263	-	-	-	-
Department of Energy	2,225	-	5	-	2,220	-	-	-	-
Department of Health & Human Srvs	38,955	15,730	1,467	-	19,746	-	1,872	-	140
Department of the Interior	2,803	2,378	-	-	419	-	-	-	6
Department of Transportation	596	-	-	-	-	-	-	-	596
Environmental Protection Agency	751	-	-	-	381	-	-	-	370
National Aeronautics and Space Admin	1,539	1,113	-	-	426	-	-	-	-
National Science Foundation	3,345	-	-	-	3,345	-	-	-	-
Mississippi									
Total	198,730	130,448	32,115	-	32,660	-	2,720	-	787
Department of Agriculture	39,059	26,977	18	-	11,172	-	892	-	-
Department of Commerce	2,536	1,404	884	-	248	-	-	-	-
Department of Defense	98,389	73,829	21,732	-	2,798	-	-	-	30
Department of Energy	4,515	-	250	-	4,265	-	-	-	-
Department of Health & Human Srvs	11,023	-	350	-	9,924	-	565	-	184
Department of the Interior	4,045	3,415	-	-	627	-	-	-	3
Department of Transportation	324	-	101	-	-	-	-	-	223
Environmental Protection Agency	3,298	2,769	-	-	209	-	8	-	312
National Aeronautics and Space Admin	33,427	22,054	8,780	-	1,338	-	1,255	-	-
National Science Foundation	2,114	-	-	-	2,079	-	-	-	35
Tennessee									
Total	576,023	135,383	42,698	256,743	113,906	12,300	14,142	-	851
Department of Agriculture	7,233	325	10	-	6,662	143	-	-	93
Department of Commerce	765	765	-	-	-	-	-	-	-
Department of Defense	146,530	112,350	12,687	17,784	3,598	51	60	-	-
Department of Energy	271,443	13,494	4,623	236,851	5,501	10,894	80	-	-
Department of Health & Human Srvs	102,336	2,977	191	1,548	83,638	592	12,950	-	440
Department of the Interior	3,183	2,722	-	-	461	-	-	-	-
Department of Transportation	818	-	456	49	188	-	-	-	125
Environmental Protection Agency	8,713	-	7,642	-	878	-	-	-	193
National Aeronautics and Space Admin	24,874	2,750	17,040	-	4,032	-	1,052	-	-
National Science Foundation	10,128	-	49	511	8,948	620	-	-	-
West South Central									
Total	3,543,371	571,675	2,267,596	-	602,152	-	94,248	-	7,700
Department of Agriculture	103,013	64,512	-	-	38,077	-	401	-	23
Department of Commerce	6,421	3,804	16	-	2,086	-	50	-	465
Department of Defense	2,323,603	245,635	1,965,079	-	108,038	-	4,821	-	30
Department of Energy	62,948	1,749	7,253	-	31,074	-	22,872	-	-
Department of Health & Human Srvs	387,229	23,302	8,064	-	326,854	-	28,355	-	654
Department of the Interior	18,971	16,628	-	-	2,112	-	35	-	196
Department of Transportation	12,749	4,413	1,778	-	1,229	-	1,518	-	3,811
Environmental Protection Agency	27,861	6,016	10,786	-	6,763	-	3,240	-	1,056
National Aeronautics and Space Admin	540,357	205,616	273,778	-	27,081	-	32,882	-	1,000
National Science Foundation	60,219	-	842	-	58,838	-	74	-	465

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Arkansas									
Total	57,017	25,071	12,514	-	18,047	-	1,128	-	257
Department of Agriculture	9,171	1,861	-	-	7,310	-	-	-	-
Department of Commerce	1	-	-	-	1	-	-	-	-
Department of Defense	12,682	80	12,316	-	286	-	-	-	-
Department of Energy	1,177	-	-	-	1,177	-	-	-	-
Department of Health & Human Srvs	29,193	20,109	185	-	7,692	-	1,128	-	79
Department of the Interior	3,161	3,021	-	-	112	-	-	-	28
Department of Transportation	150	-	-	-	-	-	-	-	150
Environmental Protection Agency	399	-	-	-	399	-	-	-	-
National Aeronautics and Space Admin	277	-	13	-	264	-	-	-	-
National Science Foundation	806	-	-	-	806	-	-	-	-
Louisiana									
Total	175,569	36,410	24,692	-	114,831	-	1,488	-	2,148
Department of Agriculture	27,464	21,692	-	-	5,628	-	144	-	-
Department of Commerce	1,021	18	-	-	538	-	-	-	465
Department of Defense	78,602	5,870	19,910	-	52,822	-	-	-	-
Department of Energy	2,586	-	-	-	2,586	-	-	-	-
Department of Health & Human Srvs	49,683	3,125	993	-	44,115	-	1,344	-	106
Department of the Interior	6,552	5,705	-	-	788	-	-	-	59
Department of Transportation	536	-	-	-	-	-	-	-	536
Environmental Protection Agency	1,768	-	-	-	1,251	-	-	-	517
National Aeronautics and Space Admin	4,861	-	3,692	-	1,169	-	-	-	-
National Science Foundation	6,496	-	97	-	5,934	-	-	-	465
Oklahoma									
Total	117,557	46,083	26,721	-	27,975	-	16,338	-	440
Department of Agriculture	14,008	7,775	-	-	6,138	-	95	-	-
Department of Commerce	4,043	3,742	-	-	301	-	-	-	-
Department of Defense	36,445	14,130	20,751	-	1,564	-	-	-	-
Department of Energy	15,008	1,749	3,827	-	2,645	-	6,787	-	-
Department of Health & Human Srvs	16,400	-	26	-	10,411	-	5,920	-	43
Department of the Interior	3,694	3,283	-	-	340	-	-	-	71
Department of Transportation	4,529	4,413	-	-	18	-	-	-	98
Environmental Protection Agency	11,737	6,016	1,945	-	514	-	3,034	-	228
National Aeronautics and Space Admin	6,046	4,975	172	-	397	-	502	-	-
National Science Foundation	5,647	-	-	-	5,647	-	-	-	-
Texas									
Total	3,189,228	464,111	2,203,669	-	441,299	-	75,294	-	4,855
Department of Agriculture	52,370	33,184	-	-	19,001	-	162	-	23
Department of Commerce	1,356	44	16	-	1,246	-	50	-	-
Department of Defense	2,195,874	225,555	1,912,102	-	53,366	-	4,821	-	30
Department of Energy	44,177	-	3,426	-	24,666	-	16,085	-	-
Department of Health & Human Srvs	291,953	68	6,860	-	264,636	-	19,963	-	426
Department of the Interior	5,564	4,619	-	-	872	-	35	-	38
Department of Transportation	7,534	-	1,778	-	1,211	-	1,518	-	3,027
Environmental Protection Agency	13,957	-	8,841	-	4,599	-	206	-	311
National Aeronautics and Space Admin	529,173	200,641	269,901	-	25,251	-	32,380	-	1,000
National Science Foundation	47,270	-	745	-	46,451	-	74	-	-
Mountain									
Total	5,555,717	1,020,742	2,428,193	731,247	474,730	763,933	66,340	59,099	11,433
Department of Agriculture	80,324	56,730	119	-	23,290	-	76	-	109
Department of Commerce	44,666	39,777	353	-	3,794	-	101	-	641
Department of Defense	3,088,943	801,722	1,953,431	94,008	93,476	141,782	2,744	-	1,780
Department of Energy	1,627,588	6,477	340,628	633,564	19,414	545,848	22,458	59,099	100
Department of Health & Human Srvs	243,747	13,032	8,140	-	180,206	5,474	32,815	-	4,080
Department of the Interior	92,367	76,258	3,490	3,675	8,224	-	-	-	720
Department of Transportation	13,209	170	2,522	-	5,622	-	3,469	-	1,426
Environmental Protection Agency	17,761	5,171	1,516	-	6,836	35	1,626	-	2,577
National Aeronautics and Space Admin	198,144	20,702	115,680	-	58,247	1,899	1,616	-	-
National Science Foundation	148,968	703	2,314	-	75,621	68,895	1,435	-	-
Arizona									
Total	501,188	118,284	247,584	-	102,352	24,250	6,622	-	2,096
Department of Agriculture	14,021	10,076	-	-	3,900	-	45	-	-
Department of Commerce	84	-	-	-	84	-	-	-	-
Department of Defense	351,843	95,220	240,738	-	15,663	222	-	-	-
Department of Energy	3,130	-	250	-	2,880	-	-	-	-
Department of Health & Human Srvs	51,774	2,033	734	-	42,001	-	5,866	-	1,140
Department of the Interior	10,605	6,301	2,805	-	1,421	-	-	-	78
Department of Transportation	1,423	-	574	-	171	-	-	-	678
Environmental Protection Agency	1,003	-	-	-	758	-	45	-	200
National Aeronautics and Space Admin	24,925	4,654	2,192	-	17,508	-	571	-	-
National Science Foundation	42,380	-	291	-	17,966	24,028	95	-	-

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Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Colorado									
Total	1,618,147	116,787	1,219,744	-	150,171	46,665	29,354	50,889	4,537
Department of Agriculture	22,719	17,620	12	-	5,064	-	23	-	-
Department of Commerce	43,857	39,777	329	-	3,650	-	101	-	-
Department of Defense	1,153,556	22,675	1,115,723	-	11,421	97	2,639	-	1,001
Department of Energy	65,434	3,142	5,253	-	6,126	-	24	50,889	-
Department of Health & Human Srvs	95,543	41	3,641	-	71,094	-	19,641	-	1,126
Department of the Interior	29,926	28,415	281	-	1,215	-	-	-	15
Department of Transportation	10,671	20	1,492	-	5,426	-	3,469	-	264
Environmental Protection Agency	5,440	-	511	-	1,341	35	1,422	-	2,131
National Aeronautics and Space Admin	114,761	4,854	91,763	-	15,357	1,791	996	-	-
National Science Foundation	76,240	243	739	-	29,477	44,742	1,039	-	-
Idaho									
Total	195,904	18,785	11,113	105,105	9,655	49,900	531	-	815
Department of Agriculture	12,632	9,514	-	-	3,118	-	-	-	-
Department of Commerce	20	-	20	-	-	-	-	-	-
Department of Defense	15,387	518	5,381	9,236	152	-	100	-	-
Department of Energy	150,626	2,410	5,637	92,319	335	49,900	-	-	25
Department of Health & Human Srvs	1,483	-	-	-	974	-	422	-	87
Department of the Interior	11,527	5,905	-	3,550	1,600	-	-	-	472
Department of Transportation	29	-	-	-	-	-	-	-	29
Environmental Protection Agency	576	-	-	-	365	-	9	-	202
National Aeronautics and Space Admin	2,130	438	-	-	1,692	-	-	-	-
National Science Foundation	1,494	-	75	-	1,419	-	-	-	-
Montana									
Total	36,234	20,877	3,743	-	10,096	-	1,077	-	441
Department of Agriculture	10,231	7,402	107	-	2,673	-	-	-	49
Department of Commerce	31	-	-	-	31	-	-	-	-
Department of Defense	3,404	746	2,407	-	251	-	-	-	-
Department of Energy	1,357	300	838	-	144	-	-	-	75
Department of Health & Human Srvs	12,752	8,672	150	-	2,728	-	1,077	-	125
Department of the Interior	4,365	3,757	-	-	558	-	-	-	50
Department of Transportation	108	-	-	-	-	-	-	-	108
Environmental Protection Agency	821	-	50	-	737	-	-	-	34
National Aeronautics and Space Admin	463	-	191	-	272	-	-	-	-
National Science Foundation	2,702	-	-	-	2,702	-	-	-	-
Nevada									
Total	427,487	77,198	336,532	-	12,392	-	889	-	476
Department of Agriculture	2,148	719	-	-	1,429	-	-	-	-
Department of Commerce	362	-	-	-	-	-	-	-	362
Department of Defense	78,038	58,996	18,726	-	316	-	-	-	-
Department of Energy	317,883	475	317,290	-	93	-	25	-	-
Department of Health & Human Srvs	4,722	-	-	-	3,791	-	864	-	67
Department of the Interior	12,717	11,528	201	-	978	-	-	-	10
Department of Transportation	62	-	-	-	25	-	-	-	37
Environmental Protection Agency	7,698	5,171	-	-	2,527	-	-	-	-
National Aeronautics and Space Admin	1,026	309	315	-	402	-	-	-	-
National Science Foundation	2,831	-	-	-	2,831	-	-	-	-
New mexico									
Total	2,220,381	593,878	274,821	626,142	67,362	643,118	4,647	8,210	2,203
Department of Agriculture	4,458	2,006	-	-	2,399	-	8	-	45
Department of Commerce	29	-	-	-	29	-	-	-	-
Department of Defense	1,069,423	573,375	247,993	84,772	21,049	141,463	5	-	766
Department of Energy	1,061,402	150	11,188	541,245	4,272	495,948	389	8,210	-
Department of Health & Human Srvs	25,208	2,286	307	-	12,055	5,474	3,895	-	1,191
Department of the Interior	5,672	5,205	-	125	317	-	-	-	25
Department of Transportation	782	150	456	-	-	-	-	-	176
Environmental Protection Agency	747	-	747	-	-	-	-	-	-
National Aeronautics and Space Admin	44,881	10,246	13,270	-	21,208	108	49	-	-
National Science Foundation	7,779	460	860	-	6,033	125	301	-	-
Utah									
Total	517,839	66,414	334,556	-	113,771	-	2,362	-	736
Department of Agriculture	9,043	6,157	-	-	2,886	-	-	-	-
Department of Commerce	283	-	4	-	-	-	-	-	279
Department of Defense	415,779	49,457	322,463	-	43,846	-	-	-	13
Department of Energy	6,416	-	72	-	4,959	-	1,385	-	-
Department of Health & Human Srvs	50,973	-	3,308	-	46,400	-	977	-	288
Department of the Interior	12,646	10,599	203	-	1,774	-	-	-	70
Department of Transportation	76	-	-	-	-	-	-	-	76
Environmental Protection Agency	1,191	-	208	-	973	-	-	-	10
National Aeronautics and Space Admin	9,770	201	7,949	-	1,620	-	-	-	-
National Science Foundation	11,662	-	349	-	11,313	-	-	-	-

Continued on next page

Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Wyoming									
Total	38,537	8,519	100	-	8,931	-	20,858	-	129
Department of Agriculture	5,072	3,236	-	-	1,821	-	-	-	15
Department of Defense	1,513	735	-	-	778	-	-	-	-
Department of Energy	21,340	-	100	-	605	-	20,635	-	-
Department of Health & Human Srvs	1,292	-	-	-	1,163	-	73	-	56
Department of the Interior	4,909	4,548	-	-	361	-	-	-	-
Department of Transportation	58	-	-	-	-	-	-	-	58
Environmental Protection Agency	285	-	-	-	135	-	150	-	-
National Aeronautics and Space Admin	188	-	-	-	188	-	-	-	-
National Science Foundation	3,880	-	-	-	3,880	-	-	-	-
Pacific									
Total	18,022,790	2,719,097	11,012,444	114,427	1,686,224	1,819,653	341,330	305,400	24,215
Department of Agriculture	124,480	81,383	41	-	38,678	-	4,025	-	353
Department of Commerce	104,379	76,164	16,298	-	10,597	-	-	-	1,320
Department of Defense	13,004,977	2,155,841	10,021,400	2,979	225,122	313,773	40,599	245,048	215
Department of Energy	1,273,476	4,215	128,483	111,448	113,162	863,344	4,569	48,055	200
Department of Health & Human Srvs	1,233,945	1,684	44,688	-	880,597	14,198	266,468	8,837	17,473
Department of the Interior	94,224	83,972	1,833	-	8,372	-	-	-	47
Department of Transportation	22,986	10,243	9,613	-	125	-	30	-	2,975
Environmental Protection Agency	36,017	9,897	13,920	-	9,698	127	757	-	1,618
National Aeronautics and Space Admin	1,824,836	295,187	764,191	-	122,525	628,061	11,775	3,083	14
National Science Foundation	303,470	511	11,977	-	277,348	150	13,107	377	-
Alaska									
Total	71,325	51,178	707	-	18,067	-	1,035	-	338
Department of Agriculture	4,711	3,462	-	-	1,249	-	-	-	-
Department of Commerce	27,955	26,211	17	-	1,727	-	-	-	-
Department of Defense	5,218	4,435	358	-	425	-	-	-	-
Department of Energy	937	19	214	-	704	-	-	-	-
Department of Health & Human Srvs	1,668	16	-	-	634	-	1,018	-	-
Department of the Interior	17,519	17,035	75	-	409	-	-	-	-
Department of Transportation	132	-	-	-	-	-	-	-	132
Environmental Protection Agency	206	-	-	-	-	-	-	-	206
National Aeronautics and Space Admin	3,365	-	-	-	3,365	-	-	-	-
National Science Foundation	9,614	-	43	-	9,554	-	17	-	-
California									
Total	15,919,376	2,478,100	9,761,017	21,534	1,322,335	1,819,649	252,148	245,066	19,527
Department of Agriculture	58,260	42,892	41	-	15,155	-	126	-	46
Department of Commerce	39,406	21,286	13,901	-	3,301	-	-	-	918
Department of Defense	11,675,020	2,079,157	8,807,178	1,974	193,413	313,769	37,676	241,638	215
Department of Energy	1,102,807	2,685	116,103	19,560	97,636	863,344	3,266	213	-
Department of Health & Human Srvs	943,380	978	38,702	-	686,610	14,198	187,360	-	15,532
Department of the Interior	32,481	27,607	716	-	4,138	-	-	-	20
Department of Transportation	21,563	10,243	9,406	-	51	-	30	-	1,833
Environmental Protection Agency	21,093	-	12,792	-	6,692	127	533	-	949
National Aeronautics and Space Admin	1,793,143	292,763	751,578	-	106,121	628,061	11,685	2,921	14
National Science Foundation	232,223	489	10,600	-	209,218	150	11,472	294	-
Hawaii									
Total	97,406	36,400	11,330	-	41,328	-	7,071	-	1,277
Department of Agriculture	15,714	6,482	-	-	5,331	-	3,899	-	2
Department of Commerce	4,700	830	379	-	3,089	-	-	-	402
Department of Defense	30,556	21,701	6,459	-	2,396	-	-	-	-
Department of Energy	5,004	-	4,047	-	1,848	-	109	-	-
Department of Health & Human Srvs	14,007	-	177	-	10,118	-	2,925	-	787
Department of the Interior	8,544	7,387	-	-	1,157	-	-	-	-
Department of Transportation	86	-	-	-	-	-	-	-	86
National Aeronautics and Space Admin	5,697	-	168	-	5,529	-	-	-	-
National Science Foundation	12,098	-	100	-	11,860	-	138	-	-

Continued on next page

Table C-136. Federal obligations for research and development, by geographic division, State, agency, and performer: fiscal year 1989- Continued

[Dollars in thousands]

Geographic division, state, and agency	Total	Federal intramural 1/	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Oregon									
Total	168,436	42,199	12,901	-	91,672	-	20,527	-	1,137
Department of Agriculture	23,557	14,882	-	-	8,370	-	-	-	305
Department of Commerce	1,193	59	-	-	1,134	-	-	-	-
Department of Defense	15,885	1,603	6,221	-	7,899	-	162	-	-
Department of Energy	8,328	861	2,284	-	5,033	-	-	-	150
Department of Health & Human Srvs	67,337	-	1,703	-	45,086	-	20,221	-	327
Department of the Interior	18,142	15,719	675	-	1,721	-	-	-	27
Department of Transportation	420	-	203	-	50	-	-	-	167
Environmental Protection Agency	9,254	7,306	350	-	1,437	-	-	-	161
National Aeronautics and Space Admin	6,081	1,769	1,089	-	3,133	-	90	-	-
National Science Foundation	18,239	-	376	-	17,809	-	54	-	-
Washington									
Total	1,766,247	111,220	1,226,489	92,893	212,822	4	60,549	60,334	1,936
Department of Agriculture	22,238	13,665	-	-	8,573	-	-	-	-
Department of Commerce	31,125	27,778	2,001	-	1,346	-	-	-	-
Department of Defense	1,278,298	48,945	1,201,184	1,005	20,989	4	2,761	3,410	-
Department of Energy	155,400	650	5,835	91,888	7,941	-	1,194	47,842	50
Department of Health & Human Srvs	207,553	690	4,106	-	138,149	-	54,944	8,837	827
Department of the Interior	17,538	16,224	367	-	947	-	-	-	-
Department of Transportation	785	-	4	-	24	-	-	-	757
Environmental Protection Agency	5,464	2,591	778	-	1,569	-	224	-	302
National Aeronautics and Space Admin	16,550	655	11,356	-	4,377	-	-	162	-
National Science Foundation	31,296	22	858	-	28,907	-	1,426	83	-
Outlying areas									
Total	45,686	10,036	5,752	-	25,370	1,908	1,471	-	1,149
Department of Agriculture	10,631	3,506	-	-	7,125	-	-	-	-
Department of Commerce	211	18	-	-	193	-	-	-	-
Department of Defense	13,276	4,944	5,702	-	722	1,908	-	-	-
Department of Energy	125	-	-	-	125	-	-	-	-
Department of Health & Human Srvs	14,821	-	50	-	12,783	-	1,471	-	517
Department of the Interior	1,883	1,568	-	-	315	-	-	-	-
Department of Transportation	18	-	-	-	-	-	-	-	18
Environmental Protection Agency	620	-	-	-	6	-	-	-	614
National Aeronautics and Space Admin	203	-	-	-	203	-	-	-	-
National Science Foundation	3,898	-	-	-	3,898	-	-	-	-
Offices abroad									
Total	43,379	17,155	24,434	-	1,705	-	85	-	-
Department of Agriculture	3,133	3,018	-	-	115	-	-	-	-
Department of Commerce	30	-	-	-	30	-	-	-	-
Department of Defense	39,751	14,137	24,434	-	1,180	-	-	-	-
Department of the Interior	40	-	-	-	40	-	-	-	-
Environmental Protection Agency	425	-	-	-	340	-	85	-	-

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance. See technical notes for further description.

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-137. Federal obligations for R&D plant, by geographic division, State, and performer supported: fiscal year 1989

[Dollars in thousands]

Geographic division and State	Total	Federal intramural	Extramural						
			Industrial firms	FFRDCs admin by industrial firms	Universities and colleges	FFRDCs admin by univs and colleges	Other nonprofit institutions	FFRDCs admin by nonprofit institutions	State and local govts
Total	2,144,331	314,767	900,367	212,261	203,009	489,913	14,228	8,400	1,386
New England	59,368	11,897	5,484	-	18,593	21,962	1,432	-	-
Connecticut	1,364	30	-	-	1,334	-	-	-	-
Maine	119	19	100	-	-	-	-	-	-
Massachusetts	54,709	10,389	5,384	-	15,542	21,962	1,432	-	-
New Hampshire	183	183	-	-	-	-	-	-	-
Rhode Island	1,586	1,276	-	-	310	-	-	-	-
Vermont	1,407	-	-	-	1,407	-	-	-	-
Middle Atlantic	227,392	25,377	54,077	71,900	20,408	53,998	1,632	-	-
New Jersey	46,786	16,545	20,261	-	3,067	6,913	-	-	-
New York	101,569	2,212	10,841	33,000	7,278	47,085	1,153	-	-
Pennsylvania	79,037	6,620	22,975	38,900	10,063	-	479	-	-
East North Central	174,648	14,717	61,158	500	24,487	69,118	4,668	-	-
Illinois	94,852	2,390	436	500	17,740	69,118	4,668	-	-
Indiana	1,514	27	-	-	1,487	-	-	-	-
Michigan	4,552	135	732	-	3,685	-	-	-	-
Ohio	69,769	9,965	59,774	-	30	-	-	-	-
Wisconsin	3,961	2,200	216	-	1,545	-	-	-	-
West North Central	22,359	6,757	3,853	-	8,828	2,921	-	-	-
Iowa	6,203	1,352	-	-	1,930	2,921	-	-	-
Kansas	1,560	202	-	-	1,358	-	-	-	-
Minnesota	1,848	854	741	-	253	-	-	-	-
Missouri	3,650	184	3,112	-	354	-	-	-	-
Nebraska	2,784	2,541	-	-	243	-	-	-	-
North Dakota	6,043	1,450	-	-	4,593	-	-	-	-
South Dakota	271	174	-	-	97	-	-	-	-
South Atlantic	415,530	126,508	202,519	20	28,683	57,800	-	-	-
Delaware	203	203	-	-	-	-	-	-	-
District of Columbia	17,146	15,744	1,302	-	100	-	-	-	-
Florida	100,007	2,243	96,761	-	1,003	-	-	-	-
Georgia	10,835	7,521	1,253	-	2,061	-	-	-	-
Maryland	120,078	81,192	36,586	-	2,300	-	-	-	-
North Carolina	4,317	927	-	-	3,390	-	-	-	-
South Carolina	8,861	306	510	20	8,025	-	-	-	-
Virginia	127,392	15,367	65,552	-	973	45,500	-	-	-
West Virginia	26,691	3,005	555	-	10,831	12,300	-	-	-
East South Central	147,596	38,228	80,299	24,821	3,928	320	-	-	-
Alabama	47,216	13,941	32,278	-	997	-	-	-	-
Kentucky	472	-	472	-	-	-	-	-	-
Mississippi	41,070	1,070	37,187	-	2,813	-	-	-	-
Tennessee	58,838	23,217	10,362	24,821	118	320	-	-	-
West South Central	152,446	11,799	111,425	-	24,207	-	5,015	-	-
Arkansas	3,144	50	-	-	3,094	-	-	-	-
Louisiana	47,214	5,393	28,218	-	13,603	-	-	-	-
Oklahoma	4,471	896	-	-	3,500	-	75	-	-
Texas	97,617	5,460	83,207	-	4,010	-	4,940	-	-
Mountain	413,941	28,831	160,251	93,038	10,383	117,413	-	3,624	401
Arizona	18,109	8,109	-	-	10,000	-	-	-	-
Colorado	62,507	2,367	53,641	-	210	3,454	-	2,434	401
Idaho	12,008	527	250	3,220	-	8,011	-	-	-
Montana	217	169	-	-	48	-	-	-	-
Nevada	69,332	6	69,326	-	-	-	-	-	-
New Mexico	239,603	5,618	37,029	89,818	-	105,948	-	1,190	-
Utah	12,070	11,940	5	-	125	-	-	-	-
Wyoming	95	95	-	-	-	-	-	-	-
Pacific	512,759	48,621	205,041	21,982	63,492	166,381	1,481	4,776	985
California	446,715	45,684	199,968	5,652	27,045	166,381	1,000	-	985
Hawaii	394	316	-	-	78	-	-	-	-
Oregon	30,121	571	205	-	29,345	-	-	-	-
Washington	35,529	2,050	4,868	16,330	7,024	-	481	4,776	-
Outlying areas	1,477	1,477	-	-	-	-	-	-	-
Offices abroad	16,815	555	16,260	-	-	-	-	-	-

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D plant obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-138. Federal obligations for R&D plant, by geographic division, State, and agency: fiscal year 1989

[Dollars in thousands]

Geographic division and State	Total	Dept of Agriculture	Dept of Commerce	Dept of Defense	Dept of Energy	Dept of Health & Human Services	Dept of the Interior	Dept of Transportation	Environmental Protection Agency	National Aeronautics & Space Admin	National Science Foundation
Total	2,144,331	89,178	9,122	499,275	872,986	78,563	10,753	15,540	-	515,333	53,581
New England	59,368	1,426	483	35,407	14,592	4,183	2,050	-	-	1,227	-
Connecticut	1,364	-	-	30	457	877	-	-	-	-	-
Maine	119	19	-	100	-	-	-	-	-	-	-
Massachusetts	54,709	-	483	33,818	14,135	2,996	2,050	-	-	1,227	-
New Hampshire	183	-	-	183	-	-	-	-	-	-	-
Rhode Island	1,586	-	-	1,276	-	310	-	-	-	-	-
Vermont	1,407	1,407	-	-	-	-	-	-	-	-	-
Middle Atlantic	227,392	4,468	723	15,802	142,827	6,674	16	15,540	-	22,096	19,246
New Jersey	46,786	245	247	1,002	7,038	989	-	15,540	-	7,379	14,346
New York	101,569	1,791	-	10,841	82,582	4,855	-	-	-	-	1,500
Pennsylvania	79,037	2,432	476	3,959	53,207	830	16	-	-	14,717	3,400
East North Central	174,648	4,996	779	10,942	91,308	2,269	1,050	-	-	58,336	4,968
Illinois	94,852	2,331	65	301	88,435	568	-	-	-	-	3,152
Indiana	1,514	27	-	-	585	402	-	-	-	-	500
Michigan	4,552	1,348	-	-	1,089	732	-	-	-	67	1,316
Ohio	69,769	92	714	10,641	269	-	-	-	-	58,053	-
Wisconsin	3,961	1,198	-	-	930	567	1,050	-	-	216	-
West North Central	22,359	14,978	171	200	3,174	354	183	-	-	3,299	-
Iowa	6,203	3,282	-	-	2,921	-	-	-	-	-	-
Kansas	1,560	1,560	-	-	-	-	-	-	-	-	-
Minnesota	1,848	854	-	-	253	-	183	-	-	558	-
Missouri	3,650	184	171	200	-	354	-	-	-	2,741	-
Nebraska	2,784	2,784	-	-	-	-	-	-	-	-	-
North Dakota	6,043	6,043	-	-	-	-	-	-	-	-	-
South Dakota	271	271	-	-	-	-	-	-	-	-	-
South Atlantic	415,530	25,213	5,158	52,652	66,904	54,426	3,970	-	-	188,138	19,061
Delaware	203	203	-	-	-	-	-	-	-	-	-
District of Columbia	17,146	1,052	-	11,555	1,834	-	-	-	-	4	2,701
Florida	100,007	1,078	-	11,292	15	406	-	-	-	87,216	-
Georgia	10,835	3,699	-	4,275	500	1,108	-	-	-	1,253	-
Maryland	120,078	15,991	4,600	10,173	600	51,471	1,000	-	-	35,247	996
North Carolina	4,317	266	-	-	310	1,441	-	-	-	-	2,300
South Carolina	8,861	306	-	-	8,045	-	-	-	-	510	-
Virginia	127,392	156	558	15,357	45,550	-	1,278	-	-	63,729	764
West Virginia	26,691	2,462	-	-	10,050	-	1,700	-	-	179	12,300
East South Central	147,596	4,047	173	36,986	25,267	997	14	-	-	80,112	-
Alabama	47,216	162	93	13,779	-	997	14	-	-	32,171	-
Kentucky	472	-	-	-	-	-	-	-	-	472	-
Mississippi	41,070	3,883	80	-	-	-	-	-	-	37,107	-
Tennessee	58,838	2	-	23,207	25,267	-	-	-	-	10,362	-
West South Central	152,446	12,868	-	19,976	21,899	2,116	-	-	-	91,787	3,800
Arkansas	3,144	244	-	-	-	-	-	-	-	-	2,900
Louisiana	47,214	5,327	-	66	13,000	603	-	-	-	28,218	-
Oklahoma	4,471	624	-	272	3,575	-	-	-	-	-	-
Texas	97,617	6,673	-	19,638	5,324	1,513	-	-	-	63,569	900
Mountain	413,941	3,608	1,042	106,550	283,019	401	45	-	-	15,822	3,454
Arizona	18,109	791	-	7,318	10,000	-	-	-	-	-	-
Colorado	62,507	1,599	1,042	53,347	2,664	401	-	-	-	-	3,454
Idaho	12,008	527	-	-	11,481	-	-	-	-	-	-
Montana	217	217	-	-	-	-	-	-	-	-	-
Nevada	69,332	6	-	-	69,286	-	40	-	-	-	-
New Mexico	239,603	245	-	34,073	189,463	-	-	-	-	15,822	-
Utah	12,070	128	-	11,812	125	-	5	-	-	-	-
Wyoming	95	95	-	-	-	-	-	-	-	-	-
Pacific	512,759	17,380	593	202,662	223,996	7,143	3,417	-	-	54,516	3,052
California	446,715	3,335	593	202,662	180,455	6,030	-	-	-	51,775	1,865
Hawaii	394	127	-	-	30	-	-	-	-	-	237
Oregon	30,121	7,846	-	-	22,070	-	205	-	-	-	-
Washington	35,529	6,072	-	-	21,441	1,113	3,212	-	-	2,741	950
Outlying areas	1,477	194	-	1,283	-	-	-	-	-	-	-
Offices abroad	16,815	-	-	16,815	-	-	-	-	-	-	-

NOTE: Only the following ten agencies are required to report to this section of the survey: the Departments of Agriculture; Commerce; Defence; Energy; the Interior; Transportation; and Health and Human Services; the Environmental Protection Agency; the National Aeronautics and Space Administration; National Science Foundation. The obligations of the 10 major R&D supporting agencies included in this table represent approximately 97 percent of total Federal R&D plant obligations in fiscal year 1989.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-139. Federal obligations for total research and development to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Total, all agencies	15,120,933	5,594,927	37.00	16,094,074	5,883,319	36.56	16,396,310	6,135,943	37.42
Departments									
Department of Agriculture, total	688,955	402,668	58.45	736,495	425,897	57.83	776,456	452,976	58.34
Agricultural Cooperative Service	2,598	1,283	49.38	2,779	1,571	56.53	2,811	1,589	56.53
Agricultural Marketing Service 1/	1,441	1,044	72.45	1,623	1,175	72.40	1,684	1,220	72.45
Agricultural Research Service	490,431	265,323	54.10	512,942	276,937	53.99	551,499	293,398	53.20
Animal & Plant Health Inspection Svc	6,788	5,002	73.69	7,325	5,462	74.57	7,846	5,477	69.81
Cooperative State Research Service	14,225	6,154	43.26	14,678	6,720	45.78	15,277	7,861	51.46
Economic Research Service	47,819	36,104	75.50	50,479	37,051	73.40	55,708	38,717	69.50
Federal Grain Inspection Service	762	472	61.94	730	485	66.44	858	500	58.28
Forest Service	115,367	80,527	69.80	136,064	89,389	65.70	130,124	96,424	74.10
Human Nutrition Information Service	5,658	3,610	63.80	5,800	3,860	66.55	6,400	4,416	69.00
Nat'l Agricultural Statistics Svc	2,621	1,904	72.64	2,869	2,041	71.14	3,007	2,132	70.90
Off of Internat'l Cooperation & Development	1,245	1,245	100.00	1,206	1,206	100.00	1,242	1,242	100.00
Department of Commerce, total	324,600	223,627	68.89	335,693	230,282	68.60	349,146	229,998	65.87
Bureau of the Census	3,964	2,746	69.27	4,653	3,228	69.37	4,526	3,141	69.40
Economic Development Administration	115	115	100.00	415	400	96.39	-	-	-
Nat'l Institute of Standards & Tech	107,703	71,929	66.78	112,597	75,186	66.77	126,767	85,180	67.19
Nat'l Oceanic & Atmospheric Admin	205,068	142,105	69.30	210,060	144,731	68.90	209,553	134,642	64.25
Nat'l Telecomm & Information Admin	7,750	6,732	86.86	7,968	6,737	84.55	8,300	7,035	84.76
Department of Defense, total	9,295,437	2,603,219	28.01	9,466,650	2,647,104	27.96	8,988,246	2,682,061	29.84
Department of the Army	1,915,588	928,914	48.49	2,061,449	992,000	48.12	2,200,281	1,001,102	45.50
Department of the Navy	3,057,648	1,184,902	38.75	3,083,870	1,200,409	38.93	3,088,607	1,209,450	39.16
Department of the Air Force	2,648,100	260,013	9.82	2,789,082	246,753	8.85	1,533,414	263,254	17.17
Defense agencies	1,622,729	226,215	13.94	1,478,379	205,871	13.93	2,078,341	204,900	9.86
Test and Evaluation, Deputy Under Secretary Defense	51,122	2,925	5.72	53,570	1,771	3.31	87,128	2,880	3.31
Director, Operational Test and Evaluation	250	250	100.00	300	300	100.00	475	475	100.00
Department of Education	14,904	7,171	48.11	16,895	7,556	44.72	21,109	8,448	40.02
Department of Energy	248,116	86,430	34.83	361,738	104,380	28.86	427,271	110,778	25.93
Dept of Hlth & Human Services, total	1,528,721	640,490	41.90	1,756,796	716,861	40.81	1,878,923	786,492	41.86
Alcohol, Drug Abuse & Mental Hlth Admin	174,060	63,295	36.36	209,087	73,242	35.03	241,474	82,293	34.08
Centers for Disease Control	72,236	61,400	85.00	77,647	66,000	85.00	87,519	74,391	85.00
Food & Drug Administration	91,789	83,528	91.00	102,789	93,538	91.00	118,289	107,643	91.00
Health Care Financing Aduin	975	10	1.03	1,000	10	1.00	900	10	1.11
Health Resources and Services Administration	2,744	2,192	79.88	2,736	2,205	80.59	2,767	2,156	77.92
Human Development Services	2,910	2,261	77.70	3,600	2,297	63.81	3,593	2,522	70.19
National Institutes of Health	1,170,821	418,121	35.71	1,339,141	467,919	34.94	1,401,564	504,671	36.01
Office of Asst't Secy for Health	8,611	6,273	72.85	15,855	7,963	50.22	17,860	9,103	50.97
Office of the Secretary	1,294	457	35.32	1,400	500	35.71	1,416	516	36.44
Social Security Administration	3,281	2,953	90.00	3,541	3,187	90.00	3,541	3,187	90.00
Dept of Housing & Urban Development	12,792	9,700	75.83	13,130	9,900	75.40	14,874	11,800	79.33
Department of the Interior, total	394,346	268,259	68.03	424,857	276,410	65.06	435,049	282,126	64.85
Bureau of Land Management	2,400	400	16.67	2,450	300	12.24	3,550	650	18.31
Bureau of Mines	67,084	49,593	73.93	73,309	51,501	70.25	69,129	48,799	70.59
Bureau of Reclamation	3,689	2,583	70.02	4,151	2,906	70.01	5,800	4,060	70.00
Geological Survey	249,075	161,040	64.66	264,705	159,209	60.15	277,212	166,644	60.11
Mineral Management Service	1,297	348	26.83	965	395	40.93	771	431	55.90
National Park Service	14,280	3,200	22.41	14,250	3,200	22.46	15,750	3,700	23.49
Office of the Secretary	20	17	85.00	25	20	80.00	35	29	82.86
Off of Surface Mining Reclamation & Enforcement	1	1	100.00	2	2	100.00	2	2	100.00
US Fish & Wildlife Service	56,500	51,077	90.40	65,000	58,877	90.58	62,800	57,811	92.06
Department of Justice, total	11,463	4,104	35.80	9,846	3,986	40.48	10,899	4,327	39.70
Drug Enforcement Administration	400	400	100.00	500	500	100.00	600	600	100.00
Federal Bureau of Investigation	7,676	1,976	25.74	5,822	1,922	33.01	6,601	2,101	31.83
Federal Prison System	1,958	1,670	85.29	1,741	1,506	86.50	1,807	1,563	86.50
Immigration & Naturalization Svc	40	40	100.00	40	40	100.00	40	40	100.00
Office of Justice Programs	1,389	18	1.30	1,743	18	1.03	1,851	23	1.24
Department of Labor, total	5,335	3,173	59.48	4,949	3,489	70.50	5,089	3,890	76.44
Bureau of Labor Statistics	1,200	50	4.17	500	55	11.00	600	55	9.17
Employment Standards Administration	118	8	6.78	265	18	6.79	221	15	6.79
Employment and Training Admin	731	391	53.49	908	469	51.65	621	519	83.57
Labor-Management Relations & Coop Prog	10	10	100.00	10	10	100.00	10	10	100.00

Continued on next page

Table C-139. Federal obligations for total research and development to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991--Continued

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Occupational Safety & Health Admin .	315	315	100.00	400	400	100.00	400	400	100.00
Office of Pension & Welfare Benefits	374	374	100.00	436	436	100.00	450	450	100.00
Office of the Secretary	2,287	1,995	87.23	2,065	2,065	100.00	2,402	2,402	100.00
Pension Benefit Guarantee Corporation	300	30	10.00	365	36	9.86	385	39	10.13
Department of State, total	306	296	96.73	239	229	95.82	267	257	96.25
Departmental funds	306	296	96.73	239	229	95.82	267	257	96.25
Department of Transportation, total ..	162,709	56,323	34.62	189,275	61,955	32.73	183,273	67,603	36.89
Coast Guard	12,372	3,900	31.52	14,490	4,539	31.33	15,870	4,960	31.25
Federal Aviation Administration	122,902	41,104	33.44	145,085	46,505	32.05	129,203	49,276	38.14
Federal Highway Administration	3,291	813	24.70	1,823	536	29.40	6,717	1,948	29.00
Federal Railroad Administration	4,547	850	18.69	7,937	815	10.27	8,850	1,050	11.86
Nat'l Highway Traffic Safety Admin .	13,373	5,905	44.16	12,452	5,639	45.29	14,440	6,001	41.56
Office of the Secretary	3,607	2,688	74.52	3,870	2,276	58.81	5,153	2,968	57.60
Research & Special Programs Admin ..	2,027	886	43.71	2,621	1,345	51.32	2,040	1,100	53.92
Urban Mass Transportation Admin	590	177	30.00	997	300	30.09	1,000	300	30.00
Department of the Treasury, total	12,286	9,500	77.32	14,690	10,577	72.00	13,785	10,506	76.21
Bureau of Engraving and Printing ...	1,497	142	9.49	3,368	460	13.66	2,406	332	13.80
Internal Revenue Service	10,362	8,931	86.19	10,869	9,664	88.91	10,869	9,664	88.91
Office of Protective Research	176	176	100.00	210	210	100.00	210	210	100.00
United States Customs Service	210	210	100.00	200	200	100.00	300	300	100.00
United States Mint	41	41	100.00	43	43	100.00	-	-	-
Department of Veterans Affairs	231,835	159,500	68.80	237,000	159,260	67.20	209,200	147,910	70.70
Other agencies									
Advisory Comm on Intergov'tl Relations	1,130	795	70.35	1,360	923	67.87	1,385	949	68.52
Agency for Internat'l Development	10,763	4,575	42.51	7,946	2,746	34.56	9,029	1,151	12.75
Appalachian Regional Commission	767	767	100.00	1,000	1,000	100.00	1,000	1,000	100.00
Consumer Product Safety Commission ...	709	640	90.27	865	865	100.00	766	766	100.00
Environmental Protection Agency	111,199	110,100	99.01	119,015	114,600	96.29	129,332	127,400	98.51
Federal Communications Commission	1,101	1,101	100.00	1,988	1,988	100.00	1,309	1,309	100.00
Office of Thrift Supervision 2/.....	3,856	2,656	68.88	5,786	3,212	55.51	6,360	3,534	55.57
Federal Trade Commission	379	333	87.86	459	404	88.02	477	420	88.05
General Services Administration	540	405	75.00	715	536	74.97	130	98	75.38
International Trade Commission	8,671	4,789	55.23	9,595	5,352	55.78	10,500	5,442	51.83
Library of Congress	7,969	5,760	72.28	8,040	5,056	62.89	10,808	5,732	53.03
National Aeronautics & Space Admin ...	1,733,436	838,257	48.36	2,051,630	931,829	45.42	2,573,009	1,026,202	39.88
National Archives	265	265	100.00	265	265	100.00	381	171	44.88
National Science Foundation	165,746	62,120	37.48	174,654	64,600	36.99	187,037	69,000	36.89
Nuclear Regulatory Commission	22,915	14,345	62.60	24,955	15,636	62.66	25,418	15,917	62.62
Smithsonian Institution	80,152	56,459	70.44	87,516	59,292	67.75	100,145	64,704	64.61
Tennessee Valley Authority	38,928	16,817	43.20	29,919	17,116	57.21	25,333	12,822	50.61
US Arms Control & Disarmament Agency .	502	282	56.18	110	10	9.09	300	150	50.00
United States Information Agency	100	1	1.00	3	3	100.00	4	4	100.00

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-140. Federal obligations for total basic research to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Total, all agencies	2,370,657	1,092,110	46.07	2,573,026	1,161,586	45.14	2,782,314	1,227,298	44.11
Departments									
Department of Agriculture, total	323,618	182,904	56.52	344,760	193,024	55.99	364,862	205,797	56.40
Agricultural Research Service	264,833	143,275	54.10	276,989	149,546	53.99	297,809	158,435	53.20
Cooperative State Research Service	7,201	2,560	35.55	7,690	2,897	37.67	8,225	3,566	43.36
Economic Research Service	6,695	5,055	75.50	7,067	5,187	73.40	7,799	5,420	69.50
Forest Service	43,193	30,642	70.94	51,241	33,967	66.29	48,932	36,641	74.88
Nat'l Agricultural Statistics Svc	953	629	66.00	1,017	671	65.98	1,063	701	65.95
Off of Internat'l Cooperation & Development	743	743	100.00	756	756	100.00	1,034	1,034	100.00
Department of Commerce, total	25,036	16,840	67.26	26,500	17,823	67.26	28,683	19,301	67.29
Bureau of the Census	194	109	56.19	226	127	56.19	225	126	56.00
Nat'l Institute of Standards & Tech	24,842	16,731	67.35	26,274	17,696	67.35	28,458	19,175	67.38
Department of Defense, total	292,277	122,336	41.86	283,508	128,378	45.28	310,195	135,183	43.58
Department of the Army	97,464	46,848	48.07	103,175	50,788	49.23	108,090	48,147	44.54
Department of the Navy	127,391	55,950	43.92	132,803	58,327	43.92	150,941	66,293	43.92
Department of the Air Force	61,092	16,051	26.27	41,827	15,682	37.49	45,283	16,973	37.48
Defense agencies	6,330	3,487	55.09	5,703	3,581	62.79	5,881	3,770	64.10
Department of Education	360	257	71.39	398	295	74.12	497	357	71.83
Department of Energy	48,762	14,769	30.29	48,938	17,113	34.97	45,955	22,340	48.61
Dept of Hlth & Human Services, total	800,497	293,497	36.66	916,037	328,474	35.86	989,310	359,001	36.29
Alcohol, Drug Abuse & Mental Hlth Admin	95,385	36,417	38.18	110,701	41,603	37.58	125,773	46,389	36.88
Health Resources and Services Administration	1,180	840	71.19	1,119	858	76.68	1,131	839	74.18
National Institutes of Health	695,471	250,036	35.95	793,912	278,880	35.13	851,096	303,812	35.70
Office of Asst't Secy for Health	8,461	6,204	73.32	10,305	7,133	69.22	11,310	7,961	70.39
Department of the Interior, total	158,938	105,991	66.69	167,689	105,206	62.74	173,896	109,034	62.70
Bureau of Land Management	-	-	-	-	-	-	600	300	50.00
Bureau of Mines	25,462	18,823	73.93	26,165	18,381	70.25	25,094	17,714	70.59
Bureau of Reclamation	2	2	100.00	-	-	-	47	33	70.21
Geological Survey	130,066	84,542	65.00	138,600	84,546	61.00	145,449	88,281	60.70
US Fish & Wildlife Service	3,408	2,624	77.00	2,924	2,279	77.94	2,706	2,706	100.00
Department of Justice, total	750	8	1.07	270	3	1.11	1	1	100.00
Office of Justice Programs	750	8	1.07	270	3	1.11	1	1	100.00
Department of Labor, total	16	16	100.00	20	20	100.00	25	22	88.00
Employment and Training Admin	16	16	100.00	20	20	100.00	25	22	88.00
Department of State, total	42	42	100.00	43	43	100.00	55	55	100.00
Departmental funds	42	42	100.00	43	43	100.00	55	55	100.00
Department of the Treasury, total	2,546	1,850	72.66	2,399	1,952	81.37	2,301	1,944	84.49
Bureau of Engraving and Printing	473	5	1.06	225	18	8.00	127	10	7.87
Internal Revenue Service	2,073	1,845	89.00	2,174	1,934	88.96	2,174	1,934	88.96
Department of Veterans Affairs	16,600	11,100	66.87	16,200	10,885	67.19	15,200	10,750	70.72
Other agencies									
Agency for Internat'l Development	91	75	82.42	46	46	100.00	5	1	20.00
Environmental Protection Agency	7,143	6,900	96.60	7,380	6,900	93.50	12,894	12,225	94.81
Library of Congress	367	186	50.68	313	137	43.77	901	360	39.96
National Aeronautics & Space Admin	453,571	220,295	48.57	502,738	231,075	45.96	559,023	221,920	39.70
National Archives	55	55	100.00	55	55	100.00	216	6	2.78
National Science Foundation	156,928	56,778	36.18	165,202	59,044	35.74	176,151	63,066	35.80
Smithsonian Institution	80,152	56,459	70.44	87,516	59,292	67.75	100,145	64,704	64.61
Tennessee Valley Authority	2,908	1,752	60.25	3,014	1,821	60.42	1,999	1,231	61.58

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-141. Federal obligations for total applied research to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Total, all agencies	3,610,818	2,044,095	56.61	3,764,730	2,036,488	54.09	4,084,292	2,165,854	53.03
Departments									
Department of Agriculture, total	331,285	200,890	60.64	355,632	213,008	59.90	373,272	226,147	60.59
Agricultural Cooperative Service	2,598	1,283	49.38	2,779	1,571	56.53	2,811	1,589	56.53
Agricultural Marketing Service 1/	1,147	831	72.45	1,315	952	72.40	1,364	988	72.43
Agricultural Research Service	196,172	106,129	54.10	205,177	110,775	53.99	220,600	117,359	53.20
Animal & Plant Health Inspection Svc	6,788	5,002	73.69	7,325	5,462	74.57	7,846	5,477	69.81
Cooperative State Research Service	7,024	3,594	51.17	6,988	3,823	54.71	7,052	4,295	60.90
Economic Research Service	41,124	31,049	75.50	43,412	31,864	73.40	47,909	33,297	69.50
Federal Grain Inspection Service	453	243	53.64	426	263	61.74	519	270	52.02
Forest Service	68,274	47,495	69.57	80,223	52,733	65.73	76,692	56,890	74.18
Human Nutrition Information Service	5,658	3,610	63.80	5,800	3,860	66.55	6,400	4,416	69.00
Nat'l Agricultural Statistics Svc	1,668	1,275	76.44	1,852	1,370	73.97	1,944	1,431	73.61
Off of Internat'l Cooperation & Development	379	379	100.00	335	335	100.00	135	135	100.00
Department of Commerce, total	273,342	186,329	68.17	281,544	190,821	67.78	286,804	184,268	64.25
Bureau of the Census	1,819	1,291	70.97	2,364	1,678	70.98	2,364	1,678	70.98
Economic Development Administration	115	115	100.00	415	400	96.39	-	-	-
Nat'l Institute of Standards & Tech	72,949	48,016	65.82	76,215	50,166	65.82	84,180	55,603	66.05
Nat'l Oceanic & Atmospheric Admin	191,596	131,057	68.40	195,529	132,780	67.91	192,900	120,887	62.67
Nat'l Telecomm & Information Admin	6,863	5,850	85.24	7,021	5,797	82.57	7,360	6,100	82.88
Department of Defense, total	1,067,431	652,529	61.13	950,857	585,577	61.58	1,027,464	646,119	62.88
Department of the Army	423,605	259,106	61.17	382,226	254,041	66.46	402,806	266,086	66.06
Department of the Navy	249,886	144,184	57.70	272,539	157,991	57.97	300,794	174,370	57.97
Department of the Air Force	180,113	153,637	85.30	146,264	137,488	94.00	161,271	151,595	94.00
Defense agencies	213,827	95,602	44.71	149,828	36,057	24.07	162,593	54,068	33.25
Department of Education	12,356	5,472	44.29	14,199	5,573	39.25	18,433	6,534	35.45
Department of Energy	92,368	27,566	29.84	140,751	29,064	20.65	174,590	31,244	17.90
Dept of Hlth & Human Services, total	579,561	300,219	51.80	667,039	335,255	50.26	712,609	371,149	52.08
Alcohol, Drug Abuse & Mental Hlth Admin	76,391	26,358	34.50	95,177	31,024	32.60	112,084	35,174	31.38
Centers for Disease Control	72,236	61,400	85.00	77,647	66,000	85.00	87,519	74,391	85.00
Food & Drug Administration	91,789	83,528	91.00	102,789	93,538	91.00	118,289	107,643	91.00
Health Care Financing Admin	975	10	1.03	1,000	10	1.00	900	10	1.11
Health Resources and Services Administration	1,564	1,352	86.45	1,617	1,347	83.30	1,636	1,317	80.50
Human Development Services	579	397	68.57	620	385	62.10	831	475	57.16
National Institutes of Health	331,452	123,764	37.34	377,848	138,504	36.66	379,993	147,364	38.78
Office of Asst't Secy for Health	-	-	-	5,400	760	14.07	6,400	1,072	16.75
Office of the Secretary	1,294	457	35.32	1,400	500	35.71	1,416	516	36.44
Social Security Administration	3,281	2,953	90.00	3,541	3,187	90.00	3,541	3,187	90.00
Dept of Housing & Urban Development	5,148	4,000	77.70	4,650	3,300	70.97	5,300	4,200	79.25
Department of the Interior, total	221,365	151,127	68.27	238,667	158,383	66.36	238,465	155,249	65.10
Bureau of Land Management	1,800	200	11.11	2,000	250	12.50	2,500	300	12.00
Bureau of Mines	39,770	29,401	73.93	43,033	30,232	70.25	37,088	26,181	70.59
Bureau of Reclamation	3,058	2,141	70.01	3,663	2,564	70.00	5,054	3,538	70.00
Geological Survey	114,767	74,083	64.55	119,979	72,443	60.38	127,407	76,193	59.80
Mineral Management Service	1,297	348	26.83	965	395	40.93	771	431	55.90
National Park Service	14,280	3,200	22.41	14,250	3,200	22.46	15,750	3,700	23.49
Off of Surface Mining Reclamation & Enforcement	1	1	100.00	1	1	100.00	1	1	100.00
US Fish & Wildlife Service	46,392	41,753	90.00	54,776	49,298	90.00	49,894	44,905	90.00
Department of Justice, total	1,948	1,692	86.86	2,020	1,595	78.96	2,147	1,595	74.29
Drug Enforcement Administration	200	200	100.00	200	200	100.00	200	200	100.00
Federal Prison System	1,678	1,450	86.41	1,557	1,350	86.71	1,557	1,350	86.71
Immigration & Naturalization Svc	40	40	100.00	40	40	100.00	40	40	100.00
Office of Justice Programs	30	2	6.67	223	5	2.24	350	5	1.43
Department of Labor, total	4,856	2,911	59.95	4,396	2,995	68.13	4,268	3,135	73.45
Bureau of Labor Statistics	1,200	50	4.17	500	55	11.00	600	55	9.17
Employment Standards Administration	118	8	6.78	265	18	6.79	221	15	6.79
Employment and Training Admin	700	360	51.43	800	361	45.12	500	401	80.20
Labor-Management Relations & Coop Prog	10	10	100.00	10	10	100.00	10	10	100.00

Continued on next page

Table C-141. Federal obligations for total applied research to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991--Continued

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Occupational Safety & Health Admin .	315	315	100.00	400	400	100.00	400	400	100.00
Office of Pension & Welfare Benefits	374	374	100.00	436	436	100.00	450	450	100.00
Office of the Secretary	1,839	1,764	95.92	1,685	1,685	100.00	1,772	1,772	100.00
Pension Benefit Guarantee Corporation	300	30	10.00	300	30	10.00	315	32	10.16
Department of State, total	264	254	96.21	196	186	94.90	212	202	95.28
Departmental funds	264	254	96.21	196	186	94.90	212	202	95.28
Department of Transportation, total ..	43,738	16,854	38.53	45,529	15,509	34.06	52,480	17,757	33.84
Coast Guard	2,722	800	29.39	3,340	969	29.01	3,610	1,040	28.81
Federal Aviation Administration	21,780	8,984	41.25	22,300	8,496	38.10	23,257	8,861	38.10
Federal Highway Administration	2,174	717	32.98	1,283	430	33.52	4,461	1,528	34.25
Federal Railroad Administration	3,819	714	18.70	6,747	693	10.27	7,100	900	12.68
Nat'l Highway Traffic Safety Admin .	12,123	4,979	41.07	10,952	4,424	40.39	12,799	4,645	36.29
Office of the Secretary	420	410	97.62	307	297	96.74	653	643	98.47
Research & Special Programs Admin ..	700	250	35.71	600	200	33.33	600	140	23.33
Department of the Treasury, total	8,999	7,159	79.55	9,994	7,917	79.22	9,691	7,948	82.01
Bureau of Engraving and Printing ...	731	71	9.71	1,206	70	5.80	853	51	5.98
Internal Revenue Service	8,082	6,902	85.40	8,478	7,537	88.90	8,478	7,537	88.90
Office of Protective Research	126	126	100.00	210	210	100.00	210	210	100.00
United States Customs Service	60	60	100.00	100	100	100.00	150	150	100.00
Department of Veterans Affairs	195,735	137,000	69.99	200,200	134,535	67.20	174,300	123,230	70.70
Other agencies									
Advisory Comm on Intergov't Relations	1,130	795	70.35	1,360	923	67.87	1,385	949	68.52
Agency for Internat'l Development	6,214	2,500	40.23	5,276	1,500	28.43	7,691	850	11.05
Appalachian Regional Commission	767	767	100.00	1,000	1,000	100.00	1,000	1,000	100.00
Consumer Product Safety Commission ...	281	212	75.44	221	221	100.00	395	395	100.00
Environmental Protection Agency	84,396	83,700	99.18	90,950	88,700	97.53	97,688	96,700	98.99
Federal Communications Commission	1,101	1,101	100.00	1,988	1,988	100.00	1,309	1,309	100.00
Office of Thrift Supervision 2/.....	3,856	2,656	68.88	5,786	3,212	55.51	6,360	3,534	55.57
Federal Trade Commission	379	333	87.86	459	404	88.02	477	420	88.05
General Services Administration	540	405	75.00	715	536	74.97	130	98	75.38
International Trade Commission	8,671	4,789	55.23	9,595	5,352	55.78	10,500	5,442	51.83
Library of Congress	1,200	747	62.25	1,153	678	58.80	2,171	534	24.60
National Aeronautics & Space Admin ...	621,095	227,132	36.57	687,120	221,693	32.26	831,266	250,237	30.10
National Archives	100	100	100.00	100	100	100.00	85	85	100.00
National Science Foundation	8,818	5,342	60.58	9,452	5,556	58.78	10,886	5,934	54.51
Nuclear Regulatory Commission	22,915	14,345	62.60	24,955	15,636	62.66	25,418	15,917	62.62
Tennessee Valley Authority	10,757	5,037	46.83	8,813	5,258	59.66	7,192	3,519	48.93
US Arms Control & Disarmament Agency .	202	132	65.35	110	10	9.09	300	150	50.00
United States Information Agency	-	-	-	3	3	100.00	4	4	100.00

1/ Includes funds for the Office of Transportation.

2/ Formerly Federal Home Loan Bank Board.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-142. Federal obligations for total development to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Total, all agencies	9,139,458	2,458,722	26.90	9,756,318	2,685,245	27.52	9,529,704	2,742,791	28.78
Departments									
Department of Agriculture, total	34,052	18,874	55.43	36,103	19,865	55.02	38,322	21,032	54.88
Agricultural Marketing Service 1/	294	213	72.45	308	223	72.40	320	232	72.50
Agricultural Research Service	29,426	15,919	54.10	30,776	16,616	53.99	33,090	17,604	53.20
Federal Grain Inspection Service	309	229	74.11	304	222	73.03	339	230	67.85
Forest Service	3,900	2,390	61.28	4,600	2,689	58.46	4,500	2,893	64.29
Off of Internat'l Cooperation & Development	123	123	100.00	115	115	100.00	73	73	100.00
Department of Commerce, total	26,222	20,458	78.02	27,649	21,638	78.26	33,659	26,429	78.52
Bureau of the Census	1,951	1,346	68.99	2,063	1,423	68.98	1,937	1,337	69.02
Nat'l Institute of Standards & Tech	9,912	7,182	72.46	10,108	7,324	72.46	14,129	10,402	73.62
Nat'l Oceanic & Atmospheric Admin	13,472	11,048	82.01	14,531	11,951	82.24	16,653	13,755	82.60
Nat'l Telecomm & Information Admin	887	882	99.44	947	940	99.26	940	935	99.47
Department of Defense, total	7,935,729	1,828,354	23.04	8,232,285	1,933,149	23.48	7,650,587	1,900,759	24.84
Department of the Army	1,394,519	622,960	44.67	1,576,048	687,171	43.60	1,689,385	686,869	40.66
Department of the Navy	2,680,371	984,768	36.74	2,678,528	984,091	36.74	2,636,872	968,787	36.74
Department of the Air Force	2,406,895	90,325	3.75	2,600,991	93,583	3.60	1,326,860	94,686	7.14
Defense agencies	1,402,572	127,126	9.06	1,322,848	166,233	12.57	1,909,867	147,062	7.70
Test and Evaluation, Deputy Under Secretary Defense	51,122	2,925	5.72	53,570	1,771	3.31	87,128	2,880	3.31
Director, Operational Test and Evaluation	250	250	100.00	300	300	100.00	475	475	100.00
Department of Education	2,188	1,442	65.90	2,298	1,688	73.46	2,179	1,557	71.45
Department of Energy	106,986	44,095	41.22	172,049	58,203	33.83	206,726	57,194	27.67
Dept of Hlth & Human Services, total	148,663	46,774	31.46	173,720	53,132	30.58	177,004	56,342	31.83
Alcohol, Drug Abuse & Mental Hlth Admin	2,284	520	22.77	3,209	615	19.16	3,617	730	20.18
Human Development Services	2,331	1,864	79.97	2,980	1,912	64.16	2,762	2,047	74.11
National Institutes of Health	143,898	44,321	30.80	167,381	50,535	30.19	170,475	53,495	31.38
Office of Asst't Secy for Health	150	69	46.00	150	70	46.67	150	70	46.67
Dept of Housing & Urban Development	7,644	5,700	74.57	8,480	6,600	77.83	9,574	7,600	79.38
Department of the Interior, total	14,043	11,141	79.33	18,501	12,821	69.30	22,688	17,843	78.65
Bureau of Land Management	600	200	33.33	450	50	11.11	450	50	11.11
Bureau of Mines	1,852	1,369	73.92	4,111	2,888	70.25	6,947	4,904	70.59
Bureau of Reclamation	629	440	69.95	488	342	70.08	699	489	69.96
Geological Survey	4,242	2,415	56.93	6,126	2,220	36.24	4,356	2,170	49.82
Office of the Secretary	20	17	85.00	25	20	80.00	35	29	82.86
Off of Surface Mining Reclamation & Enforcement	-	-	-	1	1	100.00	1	1	100.00
US Fish & Wildlife Service	6,700	6,700	100.00	7,300	7,300	100.00	10,200	10,200	100.00
Department of Justice, total	8,765	2,404	27.43	7,556	2,388	31.60	8,751	2,731	31.21
Drug Enforcement Administration	200	200	100.00	300	300	100.00	400	400	100.00
Federal Bureau of Investigation	7,676	1,976	25.74	5,822	1,922	33.01	6,601	2,101	31.83
Federal Prison System	280	220	78.57	184	156	84.78	250	213	85.20
Office of Justice Programs	609	8	1.31	1,250	10	.80	1,500	17	1.13
Department of Labor, total	463	246	53.13	533	474	88.93	796	733	92.09
Employment and Training Admin	15	15	100.00	88	88	100.00	96	96	100.00

Continued on next page

Table C-142. Federal obligations for total development to intramural performers for personnel costs, by agency: fiscal years 1989, 1990, and 1991--Continued

[Dollars in thousands]

Agency and subdivision	1989			Estimates					
				1990			1991		
	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total	Total	Personnel costs	Percent of total
Office of the Secretary	448	231	51.56	380	380	100.00	630	630	100.00
Pension Benefit Guarantee Corporation	-	-	-	65	6	9.23	70	7	10.00
Department of Transportation, total	118,971	39,469	33.18	143,746	46,446	32.31	130,793	49,846	38.11
Coast Guard	9,650	3,100	32.12	11,150	3,570	32.02	12,260	3,920	31.97
Federal Aviation Administration	101,122	32,120	31.76	122,785	38,009	30.96	105,946	40,415	38.15
Federal Highway Administration	1,117	96	8.59	540	106	19.63	2,256	420	18.62
Federal Railroad Administration	728	136	18.68	1,190	122	10.25	1,750	150	8.57
Nat'l Highway Traffic Safety Admin	1,250	926	74.08	1,500	1,215	81.00	1,641	1,356	82.63
Office of the Secretary	3,187	2,278	71.48	3,563	1,979	55.54	4,500	2,325	51.67
Research & Special Programs Admin	1,327	636	47.93	2,021	1,145	56.66	1,440	960	66.67
Urban Mass Transportation Admin	590	177	30.00	997	300	30.09	1,000	300	30.00
Department of the Treasury, total	741	491	66.26	2,297	708	30.82	1,793	614	34.24
Bureau of Engraving and Printing	293	66	22.53	1,937	372	19.20	1,426	271	19.00
Internal Revenue Service	207	184	88.89	217	193	88.94	217	193	88.94
Office of Protective Research	50	50	100.00	-	-	-	-	-	-
United States Customs Service	150	150	100.00	100	100	100.00	150	150	100.00
United States Mint	41	41	100.00	43	43	100.00	-	-	-
Department of Veterans Affairs	19,500	11,400	58.46	20,600	13,840	67.18	19,700	13,930	70.71
Other agencies									
Agency for Internat'l Development	4,458	2,000	44.86	2,624	1,200	45.73	1,333	300	22.51
Consumer Product Safety Commission	428	428	100.00	644	644	100.00	371	371	100.00
Environmental Protection Agency	19,660	19,500	99.19	20,685	19,000	91.85	18,750	18,475	98.53
Library of Congress	6,402	4,827	75.40	6,574	4,241	64.51	7,736	4,838	62.54
National Aeronautics & Space Admin	658,770	390,830	59.33	861,772	479,061	55.59	1,182,720	554,045	46.84
National Archives	110	110	100.00	110	110	100.00	80	80	100.00
Tennessee Valley Authority	25,263	10,028	39.69	18,092	10,037	55.48	16,142	8,072	50.01
US Arms Control & Disarmament Agency	300	150	50.00	-	-	-	-	-	-
United States Information Agency	100	1	1.00	-	-	-	-	-	-

1/ Includes funds for the Office of Transportation.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-143A. Federal outlays for research, development, and R&D plant, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	15,734.4	15,970.7	16,727.1	17,488.8	18,297.1	19,550.8	21,020.9	22,882.9	25,127.9	27,041.0	30,635.8
Departments											
Dept of Agriculture, total	298.6	318.9	357.9	357.1	381.5	425.6	468.8	537.8	572.4	630.5	687.6
Agricultural Cooperative Svc 1/	.9	.9	1.1	1.1	1.2	1.2	1.4	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/	N/A	N/A	-	-	-	-	-	-	-	.9	1.3
Agricultural Research Svc 3/	172.6	182.8	208.7	199.3	210.5	232.8	247.4	294.6	318.4	331.2	371.6
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/	62.5	69.1	73.7	82.1	85.2	95.6	104.2	120.2	134.9	156.6	174.2
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.5	32.4	35.6	N/A
Economic Research Svc	15.8	14.8	16.8	15.2	18.1	22.2	23.6	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.1
Federal Grain Inspection Service	-	-	-	-	-	-	-	-	-	-	-
Forest Service	45.8	50.2	56.5	58.3	65.6	72.5	90.3	92.5	86.7	105.7	100.6
Human Nutrition Info Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library	.3	.4	.3	.3	.2	.1	.0	-	-	-	-
Off of Internat'l Coop & Dev't	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.4
Off of Transportation 2/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.5	.8
Nat'l Agricultural Stat Svc	-	-	-	-	-	-	-	N/A	N/A	N/A	N/A
Department of Commerce, total	127.9	122.9	168.2	186.2	188.2	224.6	233.3	238.2	272.7	307.1	360.6
Nat'l Inst of Standards & Tech	31.3	33.5	34.7	36.8	42.5	47.2	49.1	53.1	59.0	64.8	77.1
Nat'l Oceanic & Atmos Admin	72.3	68.4	109.7	114.4	109.5	127.7	134.5	132.6	164.7	190.1	210.6
Other Commerce	24.4	21.0	23.8	34.9	36.3	49.7	49.8	52.5	48.9	52.2	72.9
Department of Defense, total	7,587.9	7,706.0	8,297.2	8,597.6	8,979.7	9,363.5	9,445.5	10,308.0	10,935.4	11,733.1	13,706.1
Department of the Army	1,771.6	1,670.6	1,889.8	2,042.4	2,308.6	2,083.0	1,969.6	2,195.0	2,464.3	2,536.2	2,852.9
Department of the Navy	2,172.4	2,477.9	2,501.5	2,498.9	2,715.8	3,126.3	3,320.1	3,582.6	3,919.4	3,926.4	4,507.9
Department of the Air Force	3,150.1	3,025.6	3,426.2	3,588.5	3,442.3	3,567.6	3,625.2	3,902.2	3,969.9	4,428.0	5,323.6
Defense agencies	488.0	527.5	475.7	461.3	485.2	556.9	507.5	610.5	555.1	814.2	981.4
Defense Civil Preparedness Agency	5.9	4.5	4.0	3.0	2.3	3.0	2.2	1.2	2.9	N/A	N/A
Test & Evaluation, Deputy Under Secretary Defense	-	-	-	3.4	25.5	26.8	20.9	16.5	23.9	28.3	40.4
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	136.5	120.9
Department of Energy, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,593.1	4,413.0	4,956.8	5,660.2
Dept of Hlth, Educ, & Welfare, total	1,261.3	1,326.8	1,554.5	1,878.4	1,960.6	2,168.2	2,615.0	2,622.2	3,070.2	N/A	N/A
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	112.6	127.3	114.1	145.1	167.2	179.9	N/A	N/A
Hlth Svcs & Mental Hlth Admin	180.5	195.5	236.9	-	-	-	-	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	-	35.8	96.9	82.8	69.8	59.7	74.8	N/A	N/A
National Institutes of Health	917.7	946.0	1,112.1	1,373.7	1,435.4	1,684.4	2,118.4	2,105.0	2,507.1	N/A	N/A
Office of Education	94.6	114.8	108.0	102.2	66.3	53.1	56.8	30.3	25.8	N/A	N/A
Other HEW	68.5	70.5	97.5	254.1	234.6	233.8	225.0	260.1	282.6	N/A	N/A
Dept of Hlth & Human Srvcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,172.7	3,554.1
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	184.7	218.1
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,713.4	3,029.3
Other HHS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	274.5	306.8
Dept of Housing & Urban Development, total	15.3	40.5	50.1	47.8	58.4	58.7	60.3	69.0	59.3	74.3	65.8
Dept of the Interior, total	158.6	182.8	213.0	254.1	194.8	266.0	319.7	304.0	339.9	404.3	431.5
Bureau of Mines	37.3	50.0	66.2	68.6	66.7	82.7	113.7	103.7	104.2	121.4	130.8
Geological Survey	39.6	41.9	50.2	62.7	68.7	95.2	115.7	112.2	128.7	144.2	145.2
Other Interior	81.8	91.0	96.6	122.8	59.4	88.1	90.4	88.1	107.0	138.7	155.5
Department of Justice, total	3.6	9.9	11.9	22.2	40.5	43.8	39.9	33.7	33.5	45.9	45.3
Office of Justice Programs	2.5	7.8	9.6	19.9	34.5	39.2	35.2	27.6	27.1	35.5	35.1
Other Justice	1.2	2.0	2.3	2.3	6.0	4.6	4.7	6.2	6.3	10.4	10.2
Department of Labor, total	19.8	22.1	23.0	18.3	22.5	25.4	27.8	28.1	97.6	109.2	137.7
Department of State, total	21.5	29.5	21.7	20.8	24.8	28.6	27.0	44.1	57.5	3.2	2.2
Agency for Internat'l Devmnt	21.0	29.1	21.2	19.3	23.2	27.4	25.4	41.8	54.6	N/A	N/A
Other State	.5	.4	.6	1.5	1.6	1.2	1.6	2.3	2.8	3.2	2.2

Continued on next page

Table C-143A. Federal outlays for research, development, and R&D plant, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Transportation, total ...	262.6	477.8	287.0	337.3	363.7	339.2	335.7	363.5	377.3	372.4	391.0
Federal Aviation Admin	53.9	340.1	107.1	88.6	115.8	113.7	114.6	102.8	100.2	111.4	109.7
Federal Highway Admin	32.5	28.5	23.3	23.5	33.5	26.8	42.9	53.0	52.9	48.9	53.4
Federal Railroad Admin	11.4	25.6	22.5	41.4	38.3	51.1	48.5	57.3	62.4	58.0	63.5
Nat'l Highway Traffic Safety Admin	19.5	22.9	34.8	47.6	44.4	36.2	33.8	49.5	68.5	53.6	60.3
Urban Mass Trans Admin	9.5	19.1	60.8	72.2	57.8	60.9	48.2	52.1	52.5	50.5	58.9
Other Transportation	135.8	41.7	38.6	63.9	73.9	50.6	47.7	48.8	40.8	49.9	45.2
Dept of the Treasury, total	.6	.8	1.3	1.0	1.1	1.7	3.8	5.0	9.9	9.6	10.9
Department of Veterans Affairs ..	61.7	67.9	76.1	82.8	85.7	97.0	109.5	112.8	123.9	123.1	138.6
Other Agencies											
Atomic Energy Commission	1,616.0	1,604.9	1,551.3	1,624.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 7/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	114.3
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	1,825.0	2,246.6	2,553.7	N/A	N/A	N/A	N/A
Environmental Protection Agency .	70.2	101.0	133.8	147.7	172.2	218.6	265.6	283.0	312.5	388.9	384.7
Nat'l Aeronautics & Space Admin .	3,753.1	3,381.9	3,422.9	3,315.2	3,256.2	3,266.5	3,669.0	3,449.1	3,432.1	3,395.2	3,605.7
National Science Foundation	324.1	373.9	435.0	470.9	584.7	600.4	669.1	674.7	738.6	804.6	848.2
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	46.1	58.5	76.9	107.8	131.7	145.4	182.8
Office of Economic Opportunity ..	79.3	129.5	81.2	76.9	-	-	N/A	N/A	N/A	N/A	N/A
All other agencies	72.0	73.7	41.1	50.2	111.3	117.9	100.0	109.0	150.5	148.1	187.5

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-143B. Federal outlays for research, development, and R&D plant, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	34,065.9	35,766.8	37,959.4	41,330.1	45,860.3	52,090.3	53,214.2	56,556.6	61,476.4	63,352.5	66,689.8
Departments											
Dept of Agriculture, total	782.5	828.4	858.8	893.5	923.2	953.0	994.0	1,049.7	1,129.8	1,220.7	1,233.8
Agricultural Cooperative Svc 1/	1.3	1.7	2.1	2.2	2.9	2.6	2.8	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/	1.2	1.5	.6	1.7	1.3	1.7	1.4	1.6	1.5	1.6	1.7
Agricultural Research Svc 3/	425.9	436.1	469.4	479.3	492.9	500.5	526.5	540.4	579.7	606.1	635.4
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	6.2	7.7	13.9	12.3
Cooperative State Rsch Svc 4/	199.0	219.8	220.4	239.5	243.6	256.5	274.1	294.8	336.9	384.3	357.6
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Svc	38.0	37.0	36.8	40.9	45.1	46.0	43.2	47.2	50.0	50.2	55.5
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Service	-	-	-	-	.9	1.0	1.2	1.0	1.1	1.3	1.3
Forest Service	101.8	116.0	111.1	109.2	113.8	113.5	120.7	138.0	136.4	146.1	152.0
Human Nutrition Info Service	-	3.8	5.8	7.9	7.2	10.6	9.6	8.2	8.4	9.0	10.7
National Agricultural Library	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Coop & Dev't	6.9	4.6	4.1	3.6	5.8	7.5	5.1	5.0	2.5	2.3	1.5
Off of Transportation 2/	.9	.9	.8	1.0	1.3	1.0	1.0	1.1	-	-	-
Nat'l Agricultural Stat Svc	7.5	7.0	7.6	8.2	8.4	8.0	3.5	3.6	2.8	3.0	3.2
Department of Commerce, total	346.8	286.5	335.2	336.3	377.8	380.1	311.1	389.4	403.2	437.6	439.5
Nat'l Inst of Standards & Tech	84.4	87.6	94.0	103.3	106.5	109.2	102.1	111.4	121.5	137.1	154.5
Nat'l Oceanic & Atmos Admin	209.0	174.1	222.0	214.7	249.1	248.7	189.2	263.5	269.1	282.7	271.1
Other Commerce	53.5	24.8	19.2	18.2	22.2	22.1	19.8	14.5	12.6	17.8	13.9
Department of Defense, total	15,993.0	18,482.9	21,373.5	22,999.4	27,143.7	32,491.1	33,611.8	34,573.0	36,869.1	36,360.2	36,519.2
Department of the Army	3,123.7	3,414.4	3,848.5	4,017.4	4,230.0	4,278.5	5,009.7	4,899.6	5,241.3	5,509.6	5,906.6
Department of the Navy	4,916.9	5,394.7	6,023.5	6,859.8	8,304.9	9,939.8	9,422.1	9,081.9	9,559.5	9,577.7	9,580.1
Department of the Air Force	6,756.6	8,209.1	9,640.9	10,849.7	12,263.7	14,133.1	14,101.0	14,774.5	15,390.5	14,418.6	13,784.7
Defense agencies	1,160.0	1,420.0	1,817.3	1,217.8	2,290.0	4,068.2	4,995.8	5,690.3	6,501.3	6,670.9	7,027.2
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Test & Evaluation, Deputy Under Secretary Defense	35.7	44.8	43.3	54.7	55.1	71.6	78.8	119.6	145.0	132.5	182.7
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	-	4.4	7.2	31.6	50.9	38.0
Department of Education, total	111.8	150.1	111.5	181.3	95.7	125.3	138.3	142.9	155.7	176.5	179.5
Department of Energy, total	6,125.9	5,785.4	5,641.9	5,656.4	5,803.0	5,381.7	5,432.7	5,743.7	6,039.0	6,663.5	7,185.6
Dept of Hlth, Educ, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other HEW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Hlth & Human Srvcs, total	3,997.5	4,052.1	4,118.6	4,484.9	5,049.6	5,531.4	5,751.0	6,923.2	7,773.4	8,199.4	8,662.6
Alcohol, Drug Abuse & Mental Hlth Admin	251.1	292.0	289.8	276.1	349.8	396.6	476.1	554.8	695.7	820.5	919.7
National Institutes of Health	3,392.2	3,475.0	3,562.9	3,981.1	4,446.3	4,867.2	4,985.2	6,060.2	6,699.0	6,944.8	7,257.4
Other HHS	354.3	285.0	265.8	227.7	253.4	267.6	289.6	308.2	378.7	434.2	485.5
Dept of Housing & Urban Development, total	54.1	37.0	30.9	24.9	18.6	13.9	19.7	14.9	20.7	18.6	28.3
Dept of the Interior, total	436.9	394.9	412.7	435.9	417.0	445.4	394.7	419.6	485.3	492.5	499.6
Bureau of Mines	109.0	105.2	102.0	111.4	100.4	131.0	91.2	87.6	92.6	101.6	87.9
Geological Survey	168.2	150.1	171.4	228.4	230.8	226.5	211.2	238.6	300.9	287.5	306.4
Other Interior	159.7	139.7	139.3	96.1	85.8	87.9	92.4	93.4	91.7	103.4	105.3
Department of Justice, total	26.1	36.6	27.6	26.5	32.7	32.1	39.0	48.1	36.0	40.2	40.5
Office of Justice Programs	19.2	30.4	21.1	19.6	20.1	19.2	22.4	21.6	22.5	26.4	24.9
Other Justice	6.9	6.2	6.5	6.9	12.6	13.0	16.6	26.5	13.4	13.8	15.6
Department of Labor, total	61.6	29.4	16.8	14.1	13.7	10.9	20.3	31.8	28.9	37.3	41.8
Department of State, total	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Agency for Internat'l Devmnt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other State	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5

Continued on next page

Table C-143B. Federal outlays for research, development, and R&D plant, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Transportation, total ...	432.1	360.0	282.3	357.5	430.2	445.2	347.7	332.1	291.5	355.5	383.6
Federal Aviation Admin	125.9	110.9	99.5	167.5	283.7	317.6	190.5	190.2	153.5	209.0	224.0
Federal Highway Admin	59.1	42.5	32.5	51.1	47.5	46.1	76.3	60.1	76.5	74.2	81.4
Federal Railroad Admin	55.0	25.6	18.5	14.7	16.2	15.4	10.9	10.6	7.0	15.2	15.3
Nat'l Highway Traffic Safety Admin	60.8	60.2	51.1	53.2	28.0	19.1	28.9	45.2	28.5	28.7	28.7
Urban Mass Trans Admin	61.9	69.8	36.5	31.2	18.6	8.8	9.4	1.4	2.0	2.5	2.1
Other Transportation	69.4	51.0	44.2	39.8	36.2	38.2	31.8	24.7	23.9	25.9	32.1
Dept of the Treasury, total	10.8	13.6	15.6	13.6	24.3	23.0	26.4	25.8	23.5	28.7	28.8
Department of Veterans Affairs ..	144.3	140.7	164.7	193.6	222.7	185.1	198.8	201.9	186.4	217.0	212.5
Other Agencies											
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 7/.....	166.1	188.6	225.2	207.2	233.0	255.5	263.2	229.1	279.1	211.6	218.5
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	344.3	336.2	312.5	266.1	274.8	306.9	325.9	340.0	343.2	388.5	417.8
Nat'l Aeronautics & Space Admin .	3,705.5	3,252.9	2,646.2	3,730.6	3,217.1	3,730.6	3,564.3	4,230.4	5,506.1	6,401.3	8,266.9
National Science Foundation	905.0	1,015.1	994.7	1,151.0	1,250.0	1,468.1	1,459.9	1,550.7	1,613.4	1,807.7	2,018.6
Nuclear Regulatory Commission ...	216.0	208.6	244.0	198.6	161.1	136.0	124.4	113.5	113.2	110.7	114.5
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All other agencies	203.7	166.2	145.3	157.3	170.5	173.6	188.1	192.5	174.4	180.3	193.7

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-144A. Federal outlays for research and development, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	15,155.5	15,358.0	16,162.7	16,850.4	17,592.5	18,721.2	20,220.2	22,082.7	24,020.1	25,838.2	29,154.2
Departments											
Dept of Agriculture, total	285.0	311.3	348.1	348.5	375.6	417.7	460.0	515.3	553.8	608.7	659.8
Agricultural Cooperative Svc 1/	.9	.9	1.1	1.1	1.2	1.2	1.4	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/	N/A	N/A	-	-	-	-	-	-	-	.9	1.3
Agricultural Research Svc 3/	161.3	177.7	200.9	194.7	207.1	228.8	242.0	275.6	301.9	312.9	347.5
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/	61.1	67.8	73.1	81.8	85.0	95.5	104.2	120.1	134.9	156.6	174.2
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.5	32.4	35.6	N/A
Economic Research Svc	15.8	14.8	16.8	15.2	18.1	22.2	23.6	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.1
Federal Grain Inspection Service	-	-	-	-	-	-	-	-	-	-	-
Forest Service	44.9	49.1	55.2	54.7	63.3	68.6	86.9	89.0	84.6	102.2	97.0
Human Nutrition Info Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library	.3	.4	.3	.3	.2	.1	.0	-	-	-	-
Off of Internat'l Coop & Dev't	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	6.4
Off of Transportation 2/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.5	.8
Nat'l Agricultural Stat Svc	-	-	-	-	-	-	-	N/A	N/A	N/A	N/A
Department of Commerce, total	122.9	118.2	164.1	180.4	176.3	214.1	225.5	232.5	269.2	305.2	355.9
Nat'l Inst of Standards & Tech	29.1	31.8	33.7	35.6	40.7	45.3	48.0	52.6	58.1	63.4	76.8
Nat'l Oceanic & Atmos Admin	69.4	65.4	107.0	110.9	101.6	119.8	129.4	131.2	162.5	190.1	206.7
Other Commerce	24.4	21.0	23.5	33.9	34.0	49.0	48.1	48.8	48.6	51.7	72.3
Department of Defense, total	7,447.1	7,561.5	8,138.8	8,440.6	8,814.9	9,210.6	9,301.3	10,182.4	10,622.8	11,497.3	13,501.4
Department of the Army	1,753.5	1,637.9	1,859.4	1,996.4	2,277.2	2,053.1	1,949.0	2,180.2	2,457.5	2,534.1	2,845.3
Department of the Navy	2,150.8	2,449.4	2,462.1	2,466.4	2,668.3	3,078.5	3,260.8	3,519.0	3,870.3	3,873.5	4,417.0
Department of the Air Force	3,088.5	2,975.9	3,362.6	3,533.1	3,374.1	3,513.1	3,568.1	3,862.2	3,719.8	4,263.1	5,220.6
Defense agencies	448.4	493.8	450.7	438.3	467.4	536.2	500.3	603.3	548.5	798.3	978.2
Defense Civil Preparedness Agency	5.9	4.5	4.0	3.0	2.3	3.0	2.2	1.2	2.9	N/A	N/A
Test & Evaluation, Deputy Under Secretary Defense	-	-	-	3.4	25.5	26.8	20.9	16.5	23.9	28.3	40.4
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	136.5	120.9
Department of Energy, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,166.0	3,931.7	4,303.3	4,697.5
Dept of Hlth, Educ, & Welfare, total	1,217.9	1,282.5	1,516.7	1,815.7	1,927.3	2,082.3	2,562.6	2,576.6	3,002.2	N/A	N/A
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	112.6	127.3	114.1	145.1	167.2	179.9	N/A	N/A
Hlth Svcs & Mental Hlth Admin	180.2	195.0	236.9	-	-	-	-	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	-	35.8	96.9	82.8	69.8	59.7	74.8	N/A	N/A
National Institutes of Health	876.6	905.8	1,087.4	1,333.3	1,407.6	1,602.8	2,066.5	2,063.7	2,440.3	N/A	N/A
Office of Education	92.7	111.2	94.9	94.0	62.8	53.1	56.8	30.3	25.8	N/A	N/A
Other HEW	68.5	70.5	97.5	240.0	232.8	229.5	224.5	255.8	281.4	N/A	N/A
Dept of Hlth & Human Srvcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,099.3	3,477.2
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	184.4	217.9
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,641.0	2,953.2
Other HHS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	273.9	306.1
Dept of Housing & Urban Development, total	15.3	40.5	50.1	47.8	58.4	58.7	60.3	69.0	59.3	74.3	65.8
Dept of the Interior, total	150.4	175.9	208.2	237.4	192.8	263.6	319.0	299.5	332.3	395.3	422.7
Bureau of Mines	37.3	50.0	66.2	68.6	66.7	82.7	113.7	100.7	104.1	117.1	128.4
Geological Survey	39.6	41.9	50.2	62.1	68.3	95.2	115.7	112.2	128.7	144.2	145.2
Other Interior	73.5	84.1	91.9	106.8	57.9	85.7	89.6	86.6	99.4	134.0	149.2
Department of Justice, total	3.6	9.9	11.9	22.2	40.5	43.8	39.9	33.7	33.5	45.9	45.3
Office of Justice Programs	2.5	7.8	9.6	19.9	34.5	39.2	35.2	27.6	27.1	35.5	35.1
Other Justice	1.2	2.0	2.3	2.3	6.0	4.6	4.7	6.2	6.3	10.4	10.2
Department of Labor, total	19.8	22.1	23.0	18.3	22.5	25.4	27.8	28.1	97.6	109.2	137.7
Department of State, total	21.4	28.5	18.4	20.2	24.5	28.4	25.9	40.1	57.4	3.2	2.2
Agency for Internat'l Devmnt	20.9	28.2	17.9	18.7	23.0	27.1	24.3	37.8	54.5	N/A	N/A
Other State	.5	.4	.6	1.5	1.6	1.2	1.6	2.3	2.8	3.2	2.2

Continued on next page

Table C-144A. Federal outlays for research and development, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Transportation, total ...	258.9	468.2	273.7	312.3	328.4	324.5	323.6	346.0	364.1	356.2	374.7
Federal Aviation Admin	53.7	339.3	106.1	88.1	115.2	110.9	112.7	99.8	99.2	101.9	104.2
Federal Highway Admin	32.4	28.3	22.8	23.4	33.1	26.4	42.5	52.6	52.5	48.7	53.1
Federal Railroad Admin	8.4	21.0	16.7	31.8	34.4	42.0	40.5	45.6	51.5	51.7	53.2
Nat'l Highway Traffic Safety Admin	19.5	22.9	34.8	47.6	44.4	36.2	33.8	49.3	68.3	53.4	60.1
Urban Mass Trans Admin	9.5	16.6	56.9	69.0	54.1	59.1	46.9	50.4	52.5	50.5	58.9
Other Transportation	135.4	40.0	36.4	52.4	47.1	50.0	47.2	48.3	40.1	49.9	45.2
Dept of the Treasury, total	.6	.8	1.3	1.0	1.1	1.7	3.7	4.9	9.9	9.5	10.9
Department of Veterans Affairs ..	58.0	60.8	66.5	75.0	80.4	94.8	97.7	106.9	114.3	120.3	134.4
Other Agencies											
Atomic Energy Commission	1,346.0	1,302.9	1,297.7	1,363.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 7/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	107.8
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	1,488.9	1,835.4	2,189.5	N/A	N/A	N/A	N/A
Environmental Protection Agency .	68.1	100.6	133.1	144.7	161.3	207.2	259.0	281.3	310.3	386.5	384.7
Nat'l Aeronautics & Space Admin .	3,696.8	3,337.8	3,372.5	3,270.5	3,181.1	3,181.2	3,548.1	3,344.2	3,307.9	3,262.5	3,465.4
National Science Foundation	292.9	334.7	417.5	427.8	570.7	571.3	619.0	649.6	700.5	775.2	830.6
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	42.3	55.8	73.3	101.7	125.4	137.5	175.4
Office of Economic Opportunity ..	79.3	129.5	81.2	76.9	-	-	N/A	N/A	N/A	N/A	N/A
All other agencies	71.8	72.4	39.8	47.9	105.5	104.7	84.0	104.9	128.1	136.5	183.8

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-144B. Federal outlays for research and development, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	32,459.1	34,390.7	36,659.4	39,691.0	44,171.4	50,609.1	51,611.7	54,739.4	59,450.4	60,793.4	64,024.0
Departments											
Dept of Agriculture, total	743.4	807.2	826.0	864.3	889.0	918.0	922.9	971.2	1,037.5	1,064.7	1,103.7
Agricultural Cooperative Svc 1/	1.3	1.7	2.1	2.2	2.9	2.6	2.8	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/	1.2	1.5	.6	1.7	1.3	1.7	1.4	1.6	1.5	1.6	1.7
Agricultural Research Svc 3/	390.1	417.5	438.7	454.3	466.2	468.1	463.2	482.1	528.0	537.1	574.7
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	5.6	7.4	7.8	8.3
Cooperative State Rsch Svc 4/	199.0	219.8	219.6	235.7	236.7	254.8	267.1	277.3	298.3	305.8	296.2
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Svc	38.0	37.0	36.8	40.9	45.1	46.0	43.2	47.2	50.0	50.2	55.5
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Service	-	-	-	-	.9	1.0	1.2	1.0	1.1	1.3	1.3
Forest Service	98.6	113.2	109.8	108.8	113.1	112.5	119.9	135.8	134.7	143.7	148.0
Human Nutrition Info Service	-	3.8	5.8	7.9	7.2	10.6	9.6	8.2	8.4	9.0	10.7
National Agricultural Library	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Coop & Dev't	6.9	4.6	4.1	3.6	5.8	7.5	5.1	5.0	2.5	2.3	1.5
Off of Transportation 2/	.9	.9	.8	1.0	1.3	1.0	1.0	1.1	-	-	-
Nat'l Agricultural Stat Svc	7.5	7.0	7.6	8.2	8.4	8.0	3.5	3.6	2.8	3.0	3.2
Department of Commerce, total	345.5	285.4	334.5	327.0	373.6	372.6	307.0	378.6	394.0	421.3	423.2
Nat'l Inst of Standards & Tech	83.9	86.6	93.3	94.1	102.2	103.3	100.0	101.3	113.0	127.4	141.8
Nat'l Oceanic & Atmos Admin	208.1	174.1	222.0	214.7	249.1	247.2	187.1	263.0	268.6	276.9	267.5
Other Commerce	53.5	24.8	19.2	18.2	22.2	22.1	19.8	14.2	12.4	17.0	13.9
Department of Defense, total	15,754.5	18,251.2	21,105.8	22,619.3	26,742.0	32,210.5	33,254.4	34,156.8	36,453.4	35,841.3	36,049.3
Department of the Army	3,114.8	3,400.9	3,827.0	3,983.0	4,176.6	4,223.5	4,949.0	4,837.8	5,201.6	5,467.5	5,875.7
Department of the Navy	4,824.7	5,269.4	5,886.8	6,709.4	8,161.1	9,809.1	9,357.1	9,003.1	9,475.0	9,490.8	9,489.2
Department of the Air Force	6,626.6	8,141.4	9,537.2	10,658.5	12,063.9	14,044.0	13,906.8	14,567.0	15,190.8	14,119.0	13,509.9
Defense agencies	1,152.6	1,394.8	1,811.5	1,213.6	2,285.2	4,062.4	4,958.4	5,622.1	6,409.5	6,580.7	6,953.7
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Test & Evaluation, Deputy Under Secretary Defense	35.7	44.8	43.3	54.7	55.1	71.6	78.8	119.6	145.0	132.5	182.7
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	-	4.4	7.2	31.6	50.9	38.0
Department of Education, total	111.8	150.1	111.5	181.3	95.7	124.5	122.6	131.8	153.4	171.6	177.2
Department of Energy, total	5,041.4	4,842.1	4,817.5	4,740.3	4,947.7	4,655.8	4,711.3	4,964.7	5,200.6	5,603.6	6,040.3
Dept of Hlth, Educ, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other HEW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Hlth & Human Srvcs, total	3,954.9	4,015.3	4,092.0	4,450.3	5,007.0	5,498.7	5,719.5	6,892.5	7,717.4	8,124.0	8,596.6
Alcohol, Drug Abuse & Mental Hlth Admin	250.9	291.7	288.8	272.0	348.4	396.1	475.5	554.8	695.7	820.5	919.7
National Institutes of Health	3,350.2	3,439.6	3,539.5	3,960.6	4,420.1	4,845.0	4,956.2	6,031.2	6,645.0	6,872.4	7,206.4
Other HHS	353.8	284.0	263.7	217.7	238.4	257.6	287.7	306.5	376.7	431.2	470.5
Dept of Housing & Urban Development, total	54.1	37.0	30.9	24.9	18.6	13.9	19.7	14.9	20.7	18.6	28.3
Dept of the Interior, total	432.8	393.6	410.3	430.7	412.8	439.3	390.0	414.6	478.4	484.7	496.2
Bureau of Mines	106.9	105.0	101.9	111.3	100.4	131.0	91.2	87.6	90.6	101.1	87.4
Geological Survey	168.2	150.1	169.9	227.2	229.9	225.6	210.4	237.9	299.5	286.2	304.6
Other Interior	157.7	138.5	138.5	92.1	82.5	82.7	88.4	89.1	88.3	97.4	104.2
Department of Justice, total	26.1	36.6	27.6	26.5	32.7	32.1	38.7	48.1	36.0	40.2	40.5
Office of Justice Programs	19.2	30.4	21.1	19.6	20.1	19.2	22.4	21.6	22.5	26.4	24.9
Other Justice	6.9	6.2	6.5	6.9	12.6	13.0	16.3	26.5	13.4	13.8	15.6
Department of Labor, total	61.6	29.4	16.8	14.1	13.7	10.9	20.3	31.8	28.9	37.3	41.8
Department of State, total	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Agency for Internat'l Devmnt	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other State	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5

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Table C-144B. Federal outlays for research and development, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Transportation, total ...	415.9	347.0	272.4	344.6	416.1	429.8	336.6	321.0	278.6	341.2	366.2
Federal Aviation Admin	119.8	106.6	90.3	155.1	270.1	303.3	180.1	179.6	141.0	194.8	207.5
Federal Highway Admin	56.3	42.5	32.5	51.1	47.5	45.5	76.0	60.1	76.5	74.2	81.4
Federal Railroad Admin	48.2	17.4	18.3	14.7	16.2	15.4	10.9	10.3	6.7	15.1	14.4
Nat'l Highway Traffic Safety Admin	60.3	59.7	50.6	52.7	27.5	18.6	28.4	45.2	28.5	28.7	28.7
Urban Mass Trans Admin	61.9	69.8	36.5	31.2	18.6	8.8	9.4	1.4	2.0	2.5	2.1
Other Transportation	69.4	51.0	44.2	39.8	36.2	38.2	31.8	24.4	23.9	25.9	32.1
Dept of the Treasury, total	10.8	13.6	15.5	13.5	24.2	22.9	26.3	25.7	23.4	28.6	28.7
Department of Veterans Affairs ..	137.8	137.7	154.1	189.0	215.1	181.2	195.1	197.3	184.9	211.7	202.1
Other Agencies											
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 7/.....	159.9	178.3	212.8	195.8	220.3	241.5	248.7	216.6	279.1	211.6	218.5
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	344.3	336.2	312.5	266.1	274.8	306.9	325.9	340.0	343.2	388.5	417.8
Nat'l Aeronautics & Space Admin .	3,558.6	3,140.7	2,538.0	3,538.7	2,970.3	3,431.5	3,250.4	3,831.7	4,974.8	5,773.3	7,547.3
National Science Foundation	892.3	1,013.6	991.8	1,108.0	1,186.0	1,410.7	1,410.0	1,494.0	1,556.7	1,744.0	1,943.7
Nuclear Regulatory Commission ...	208.7	208.6	244.0	198.6	161.1	136.0	124.4	113.5	113.2	110.7	114.5
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
All other agencies	202.9	165.6	143.9	156.5	169.4	170.8	185.1	190.4	171.4	171.8	183.7

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-145A. Federal outlays for R&D plant, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	578.9	612.7	564.4	638.4	704.6	829.7	800.6	800.2	1,107.8	1,202.8	1,481.7
Departments											
Dept of Agriculture, total	13.6	7.6	9.7	8.6	5.9	7.9	8.8	22.5	18.6	21.7	27.7
Department of Commerce, total	5.1	4.7	4.1	5.8	11.9	10.5	7.8	5.7	3.5	1.9	4.8
Department of Defense, total	140.8	144.5	158.4	157.0	164.9	152.9	144.2	125.6	312.6	235.8	204.7
Department of the Army	18.2	32.7	30.4	46.0	31.4	30.0	20.6	14.8	6.8	2.1	7.6
Department of the Navy	21.6	28.4	39.4	32.5	47.5	47.8	59.3	63.6	49.1	52.9	90.9
Department of the Air Force	61.5	49.7	63.6	55.4	68.2	54.5	57.1	40.0	250.1	164.9	103.0
Defense Agencies	39.6	33.7	25.0	23.0	17.7	20.6	7.2	7.2	6.6	15.9	3.2
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Department of Energy, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	427.1	481.3	653.5	962.8
Dept of Hlth, Educ, & Welfare, total	43.3	44.3	37.8	62.7	33.3	85.9	52.4	45.6	68.0	N/A	N/A
Dept of Hlth & Human Srvcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	73.4	76.9
Dept of the Interior, total	8.3	7.0	4.8	16.7	2.0	2.4	.8	4.4	7.7	9.0	8.7
Department of Justice, total	-	-	-	-	-	-	-	-	-	-	-
Department of State, total	.1	1.0	3.3	.6	.2	.3	1.2	4.0	.1	-	-
Dept of Transportation, total	3.7	9.6	13.3	25.0	35.4	14.7	12.1	17.5	13.2	16.2	16.3
Dept of the Treasury, total	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
Department of Veterans Affairs	3.7	7.0	9.6	7.8	5.3	2.2	11.8	5.9	9.7	2.8	4.2
Other Agencies											
Atomic Energy Commission	270.0	302.0	253.6	261.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 1/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.5	6.6
Energy Rsch & Development Admin	N/A	N/A	N/A	N/A	336.1	411.2	364.2	N/A	N/A	N/A	N/A
Environmental Protection Agency	2.1	.4	.7	3.0	10.9	11.3	6.7	1.6	2.2	2.4	-
Nat'l Aeronautics & Space Admin	56.6	44.1	50.3	44.7	75.1	85.3	120.9	105.0	124.3	132.7	140.3
National Science Foundation	31.2	39.2	17.5	43.1	14.0	29.1	50.1	25.1	38.0	29.4	17.6
Nuclear Regulatory Commission	N/A	N/A	N/A	N/A	3.8	2.6	3.5	6.1	6.2	8.0	7.4
All other agencies	.3	1.3	1.3	2.3	5.8	13.2	16.0	4.0	22.3	11.5	3.7

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-145B. Federal outlays for R&D plant, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	1,606.7	1,376.1	1,299.9	1,639.2	1,688.9	1,481.2	1,602.4	1,817.2	2,026.1	2,559.1	2,665.8
Departments											
Dept of Agriculture, total	39.0	21.3	32.8	29.2	34.3	35.0	71.1	78.5	92.3	156.0	130.1
Department of Commerce, total	1.3	1.0	.7	9.2	4.3	7.4	4.2	10.9	9.1	16.3	16.3
Department of Defense, total	238.5	231.7	267.7	380.1	401.7	280.6	357.3	416.2	415.6	518.9	470.0
Department of the Army	8.9	13.5	21.5	34.4	53.4	55.0	60.7	61.8	39.7	42.1	30.9
Department of the Navy	92.2	125.3	136.7	150.3	143.8	130.7	65.0	78.8	84.5	87.0	90.8
Department of the Air Force	130.0	67.7	103.7	191.2	199.8	89.1	194.3	207.5	199.7	299.6	274.8
Defense Agencies	7.4	25.2	5.8	4.2	4.7	5.8	37.4	68.1	91.8	90.2	73.5
Department of Education, total	-	-	-	-	-	.8	15.8	11.1	2.3	4.9	2.3
Department of Energy, total	1,084.5	943.3	624.5	916.1	855.3	725.8	721.3	779.0	838.3	1,059.9	1,145.3
Dept of Hlth, Educ, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Hlth & Human Srvcs, total	42.6	36.8	26.5	34.6	42.6	32.7	31.5	30.7	56.0	75.4	66.0
Dept of the Interior, total	4.1	1.3	2.4	5.2	4.2	6.1	4.8	5.1	6.8	7.8	3.4
Department of Justice, total	-	-	-	-	-	-	.3	-	-	-	-
Department of State, total	-	-	-	-	-	-	-	-	-	-	-
Dept of Transportation, total	16.2	13.0	9.9	12.9	14.1	15.5	11.2	11.1	12.9	14.4	17.3
Dept of the Treasury, total	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Department of Veterans Affairs	6.5	2.9	10.6	4.6	7.6	3.9	3.7	4.6	1.5	5.3	10.4
Other Agencies											
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency for International Development 1/	6.2	10.3	12.3	11.4	12.8	14.0	14.4	12.6	-	-	-
Energy Rsch & Development Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Aeronautics & Space Admin	146.9	112.2	108.1	191.9	246.8	299.1	313.9	398.7	531.3	627.9	719.7
National Science Foundation	12.7	1.5	2.9	43.0	64.0	57.3	49.9	56.7	56.7	63.7	74.9
Nuclear Regulatory Commission	7.3	-	-	-	-	-	-	-	-	-	-
All other agencies	.8	.6	1.5	.8	1.2	2.8	3.0	2.1	3.0	8.5	10.0

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-146A. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	15,863.4	16,153.8	17,098.0	17,574.5	18,176.5	19,859.5	21,616.4	24,817.6	27,140.8	29,620.6	31,386.1
Department of Agriculture, total	286.4	310.0	357.4	369.4	387.5	427.9	478.6	559.9	645.9	685.7	744.5
Agricultural Cooperative Svc 1/	.9	1.0	1.1	1.2	1.4	1.2	1.2	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/..	N/A	N/A	-	-	-	-	-	-	-	1.0	1.3
Agricultural Research Svc 3/...	164.0	177.5	198.0	201.2	208.3	221.6	255.3	310.1	347.5	365.0	405.0
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/..	62.1	67.8	82.6	89.4	89.4	101.1	113.4	127.3	157.4	172.6	184.2
Econ, Stat & Coop Svc 5/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.5	32.7	35.5	N/A
Economic Research Service	14.9	15.5	16.0	16.9	18.1	21.3	24.0	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.1
Federal Grain Inspection Svc ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	43.7	47.1	58.7	59.6	69.6	81.5	82.8	92.1	108.3	111.0	115.2
Human Nutrition Info Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library .	.2	.4	.2	.3	.1	.0	.0	-	-	-	-
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	5.3
Office of Transportation 2/....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.7	.8
Nat'l Agricultural Stat svc ...	.7	.7	.7	.7	.6	1.2	1.9	N/A	N/A	N/A	N/A
Department of Commerce, total ...	125.5	152.9	194.7	198.5	192.2	224.9	235.5	251.8	287.7	311.8	347.2
Bureau of the Census	3.0	4.1	3.9	1.0	1.0	1.0	2.5	2.6	3.4	3.1	3.2
Economic Development Admin	8.8	4.6	6.6	6.3	4.1	10.3	15.1	15.0	38.5	43.1	32.3
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	12.6	24.3	22.9	25.9	25.9	23.9	21.2	19.7	20.6	20.5	19.9
Minority Business Dev Agency ..	3.5	-	.5	2.1	1.0	4.6	2.0	3.4	-	-	-
Nat'l Inst of Standards & Tech	30.8	33.8	36.6	38.9	41.1	44.6	47.9	53.9	59.1	69.3	76.4
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	3.6	6.4	6.6	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	66.4	83.4	120.1	119.3	117.0	135.1	139.1	147.2	163.7	171.2	203.6
Nat'l Telecomm & Info Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.9	1.8	4.1	10.7
Office of Telecommunications ..	-	2.1	3.6	3.5	1.6	1.3	.9	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	.1	.6
Patent and Trademark Office ...	.4	.6	.6	.6	.5	.5	.4	.5	.5	.5	.5
US Travel & Tourism Admin	-	-	-	.8	-	-	-	-	-	-	-
Department of Defense, total	7,500.9	7,662.7	8,492.9	8,550.6	8,589.5	9,179.6	9,798.1	11,409.0	11,786.2	12,776.4	14,189.2
Department of the Army	1,687.0	1,726.0	2,103.7	2,030.7	2,042.0	1,920.7	2,026.0	2,458.2	2,556.5	2,772.5	2,993.8
Department of the Navy	2,276.1	2,311.7	2,559.7	2,690.5	2,772.6	3,162.8	3,373.8	3,878.6	4,046.7	4,403.1	4,789.3
Department of the Air Force ...	3,049.1	3,163.2	3,325.1	3,344.1	3,283.9	3,573.1	3,799.6	4,381.1	4,422.4	4,693.1	5,319.0
Defense agencies	484.6	458.8	500.4	457.1	464.1	497.4	573.9	659.5	724.5	878.4	1,049.2
Defense Civil Preparedness Agency	4.1	3.0	4.0	3.2	2.7	1.7	.7	1.3	7.5	N/A	N/A
Test & Evaluation, Deputy under Secretary Defense	N/A	N/A	N/A	25.1	24.2	23.9	24.1	30.2	28.6	29.3	37.9
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	166.3	139.4
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4,097.2	4,935.5	5,483.2	5,777.8
Dept of Hlth, Education, & Welfare, total	1,252.2	1,493.4	1,806.1	1,879.1	2,331.0	2,436.5	2,616.7	2,955.9	3,281.5	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	122.2	155.6	139.4	139.5	153.0	180.2	N/A	N/A
Centers for Disease Control ...	N/A	N/A	N/A	38.6	44.9	42.6	49.6	55.3	60.1	N/A	N/A
Environmental Health Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	21.8	25.6	30.4	30.4	44.0	36.6	38.0	43.7	65.0	N/A	N/A
Health Care Financing Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.0	19.4	N/A	N/A
Health Resources Admin	N/A	N/A	-	52.7	55.8	43.3	38.2	7.4	5.5	N/A	N/A
Health Services Administration	N/A	N/A	N/A	13.2	12.5	17.3	17.5	17.7	18.2	N/A	N/A
Hlth Svcs & Mental Hlth Admin .	188.4	223.5	249.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education ..	N/A	N/A	-	106.8	75.7	69.9	63.7	64.9	89.5	N/A	N/A
National Institutes of Health .	893.2	1,055.3	1,321.1	1,355.5	1,777.3	1,918.2	2,092.5	2,411.7	2,654.2	N/A	N/A
Off of Asst't Secy for Educ ...	-	-	-	-	-	.6	1.0	1.0	1.3	N/A	N/A
Off of Asst't Secy for Hlth ...	-	-	-	-	-	-	-	32.2	36.2	N/A	N/A
Office of Child Development ...	2.0	11.2	17.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	99.5	132.8	130.2	58.3	51.5	45.9	58.2	31.1	32.9	N/A	N/A
Off of Human Development Svcs .	-	-	-	28.8	53.0	64.3	61.9	76.8	75.8	N/A	N/A
Office of International Health	-	-	-	.7	2.7	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	-	-	-	29.8	26.2	23.7	20.0	30.2	N/A	N/A
Social & Rehabilitation Svc ...	34.9	34.1	43.8	53.5	8.9	9.6	18.6	N/A	N/A	N/A	N/A
Social Security Administration	12.4	10.9	13.6	18.5	19.4	22.6	14.4	11.2	12.9	N/A	N/A

Continued on next page

Table C-146A. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,558.4	3,810.8
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	214.4	233.5
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	76.3	87.3
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	66.7	76.6
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.8	45.7
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.9	5.1
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.7	26.7
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	57.1	49.3
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,000.8	3,211.2
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.6	29.9
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.7	24.0
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.3	21.4
Dept of Housing & Urban Dev	29.9	47.7	49.1	57.8	64.8	62.0	67.6	52.1	69.7	67.9	56.0
Dept of the Interior, total	167.4	200.0	232.5	265.8	194.5	307.2	339.1	319.7	374.0	410.8	418.8
Bonneville Power Admin 7/	2.1	2.9	3.2	3.0	2.5	6.1	7.1	N/A	N/A	N/A	N/A
Bureau of Land Management	.7	.8	.8	.7	.7	.8	.7	.9	1.2	1.3	1.7
Bureau of Mines	46.5	60.3	70.9	77.5	66.1	107.6	131.3	105.3	121.1	121.3	114.4
Bureau of Reclamation	7.3	9.2	10.2	9.7	7.4	7.8	8.3	9.9	11.2	12.2	14.1
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	39.9	41.9	51.6	67.3	66.6	106.6	110.3	117.5	133.7	145.6	146.3
Heritage Conservation & Recreation Svc	.1	.2	.0	.0	.0	.0	.0	.0	-	-	-
Mineral Management Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Park Service	-	1.1	1.3	1.5	2.5	8.4	9.3	7.8	7.7	8.9	8.2
Office of Coal Research	13.5	18.8	32.4	46.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.2	1.4	21.3	.5	1.7	1.0	4.5	1.7	1.4	2.2
Off of Surface Mining Reclamation & Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.2	5.0	7.8
Office of Water Rsch & Tech	36.9	41.4	38.3	13.3	22.8	19.5	19.0	16.0	28.0	28.0	30.0
US Fish & Wildlife Service	20.5	23.3	22.4	24.9	25.5	48.8	52.0	57.7	67.2	87.1	94.1
Department of Justice, total	8.6	10.3	23.4	33.2	34.7	44.3	33.9	27.7	60.9	43.0	41.5
Drug Enforcement Admin	.8	1.5	1.2	1.6	5.0	1.5	2.5	3.0	1.9	2.4	2.7
Fed Bureau of Investigation	.2	1.0	.7	.7	1.9	1.2	1.2	1.4	1.8	3.1	1.4
Federal Prison System	.2	.4	.5	.5	.5	.6	.8	1.1	3.6	3.4	2.1
Immigration & Naturalization Svc	-	-	-	-	-	.1	.1	.3	.4	.2	.3
Office of Justice Programs	7.4	7.5	21.0	30.4	27.3	40.9	29.2	21.8	51.6	32.2	33.2
Office of Legal Policy	-	-	-	-	-	-	-	-	1.6	1.7	1.8
Department of Labor, total	20.6	22.8	23.1	19.9	23.8	25.4	28.5	29.6	97.8	137.0	138.1
Bureau of Labor Statistics	3.8	3.8	4.8	1.0	1.7	1.8	1.3	1.4	1.2	.9	.9
Employment Standards Admin	2.2	1.5	1.6	1.3	.9	3.2	4.3	4.4	3.7	5.3	4.9
Employment & Training Admin	14.3	16.5	15.6	14.6	16.1	15.5	17.5	16.8	86.6	120.8	121.7
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Labor-Management Svcs Admin 8/	.3	.5	.7	.9	1.2	.8	.7	3.3	2.8	3.2	2.8
Occupational Safety & Hlth Administration	N/A	.3	.2	.9	1.4	2.0	2.9	3.4	1.3	5.1	6.3
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	.2	.2	1.2	2.5	2.0	1.8	.2	2.2	1.6	1.4
Pension Benefit Guarantee Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Post Office Department	38.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	27.6	39.0	29.2	26.6	22.9	27.9	44.5	77.6	85.4	3.2	2.2
Agency for Internat'l Dev 9/	27.3	38.6	28.6	25.1	21.4	26.7	42.9	75.3	82.6	N/A	N/A
Departmental funds	.1	.4	.6	1.5	1.5	1.2	1.6	2.3	2.8	3.2	2.2
Peace Corps	.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	333.3	508.0	336.3	348.9	383.2	324.8	308.7	377.1	422.4	392.7	384.5
Coast Guard	18.7	23.2	39.0	44.8	26.6	16.5	12.8	19.5	24.4	21.1	18.0
Federal Aviation Admin	56.3	347.4	102.4	81.0	125.4	109.0	100.1	106.4	111.5	120.4	108.8
Federal Highway Administration	32.9	27.1	20.8	23.7	41.2	45.1	29.3	55.9	52.1	53.5	58.3
Federal Railroad Admin	16.4	25.3	36.6	46.9	37.4	39.4	60.5	58.5	65.7	56.1	56.4
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Highway Traffic Safety Administration	19.5	26.7	50.0	54.6	53.6	34.0	31.4	47.2	66.5	56.8	63.8
Office of the Secretary	169.5	15.3	23.6	23.6	29.7	31.3	25.8	28.0	31.7	11.7	10.8
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.9	15.0	14.0
Urban Mass Trans Admin	20.0	43.0	63.9	74.4	69.2	49.4	48.8	61.6	69.6	58.0	54.4

Continued on next page

Table C-146A. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.6	0.8	1.3	1.0	1.1	1.7	3.8	4.9	9.9	9.6	12.1
Bureau of Alcohol, Tobacco, & Firearms	N/A	N/A	-	-	-	-	-	1.1	2.0	2.5	1.6
Bureau of Engraving & Printing	.6	.8	1.3	1.0	1.1	1.7	2.8	2.5	3.7	2.1	2.3
Internal Revenue Service	-	-	-	-	-	-	-	-	2.4	3.6	4.0
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.4
United States Customs Service .	-	-	-	-	-	-	1.1	1.3	1.8	1.4	3.9
United States Mint	-	-	-	-	-	-	-	-	-	-	-
Department of Veterans Affairs ..	61.2	77.9	71.3	84.6	86.9	97.0	109.5	112.9	118.1	132.1	137.8
Other Agencies											
Action	N/A	.1	-	-	.2	.2	.1	.5	1.6	1.6	-
Advisory Comm on Intergov't Relations	.6	.5	.7	.9	1.1	1.2	1.0	1.5	1.7	1.7	2.2
Agency For International Dev 9/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	112.9	155.6
Appalachian Regional Commission .	-	3.0	-	-	-	-	.7	.7	.5	.9	.8
Atomic Energy Commission	1,611.9	1,615.2	1,544.4	1,712.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.4	.6	1.0	2.4	3.1	4.4	4.0	3.9	N/A	N/A	N/A
Community Services Admin	N/A	N/A	N/A	N/A	21.7	23.1	10.2	24.0	24.3	20.7	30.3
Consumer Product Safety Comm	N/A	N/A	-	.3	4.3	7.9	5.8	6.7	4.1	6.6	6.2
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	1,881.6	2,439.9	2,902.6	N/A	N/A	N/A	N/A
Environmental Protection Agency .	90.5	137.8	123.0	205.1	170.5	259.7	265.4	297.6	389.3	412.5	345.0
Federal Communications Comm	1.0	.6	.8	1.1	.9	1.1	1.5	2.0	2.4	2.9	3.4
Fed Emergency Management Agency .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.0	12.6	11.8
Federal Energy Administration ...	N/A	N/A	N/A	N/A	-	1.3	3.0	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	.4	.4	.5	.5	.7	.7	.8	1.7	1.0	.9	1.2
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Trade Commission	.4	.4	.6	.7	.9	.9	.9	1.1	1.4	1.5	3.0
General Services Admin	.3	.2	.3	.5	1.8	1.8	1.1	.9	2.7	.5	.2
International Trade Commission ..	-	-	-	-	-	-	1.5	2.6	3.1	3.4	2.1
Interstate Commerce Commission ..	-	-	-	-	-	-	.1	.1	.3	.2	.1
Library of Congress	1.9	2.5	2.3	2.6	2.2	2.6	3.0	3.8	4.9	5.9	6.9
Nat'l Aeronautics & Space Admin .	3,833.4	3,298.2	3,202.5	3,130.2	3,100.5	3,207.1	3,529.0	3,288.9	3,495.6	3,725.9	3,393.2
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	312.3	364.8	473.5	537.0	568.1	618.1	661.8	724.1	788.5	838.1	900.5
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	46.1	67.2	98.1	119.4	140.8	157.4	190.4
Office of Economic Opportunity ..	123.4	134.0	92.7	87.8	-	-	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	1.0	.6	.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.5	6.0	6.8
Office of Science and Technology	1.9	2.0	2.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	.2	1.2	.6	.3	4.1	4.6	-	-	N/A	N/A
Postal Service	N/A	40.4	-	-	-	-	-	-	-	-	-
Small Business Administration ...	.1	-	-	-	-	.2	.1	.5	-	-	-
Smithsonian Institution	18.3	15.1	21.3	24.1	25.2	25.2	26.2	29.8	35.1	37.9	41.9
Spec Action Off for Drug Abuse Prevention	N/A	N/A	-	12.0	11.1	3.8	-	N/A	N/A	N/A	N/A
Tennessee Valley Authority	8.2	9.9	11.6	18.8	22.9	28.8	28.9	30.2	53.4	89.2	80.7
US Arms Control & Disarmament Agency	4.2	1.7	1.9	2.0	1.1	1.0	1.4	2.2	3.6	3.5	3.8
US Information Agency 11/.....	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-146B. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	34,589.6	37,822.4	40,009.6	44,012.1	50,180.4	52,951.2	57,099.0	58,825.9	63,570.9	65,286.7	68,868.1
Department of Agriculture, total	794.7	818.7	881.5	905.4	983.6	1,007.9	1,059.6	1,151.8	1,127.5	1,227.3	1,233.8
Agricultural Cooperative Svc 1/	1.7	1.7	2.1	2.2	2.9	2.6	2.7	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/..	1.1	1.2	1.4	1.5	1.7	1.6	1.5	1.6	1.5	1.6	1.7
Agricultural Research Svc 3/...	411.6	426.0	466.8	480.1	498.7	532.6	522.4	561.2	578.7	609.6	658.5
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	6.2	7.7	13.9	12.3
Cooperative State Rsch Svc 4/..	199.4	219.0	242.3	245.7	294.3	278.6	338.3	374.7	339.4	375.3	335.4
Econ, Stat & Coop Svc 5/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Service	39.3	39.3	38.8	43.7	46.4	44.6	44.8	48.1	49.5	51.0	56.3
Economics & Statistics Svc 6/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Svc ..	N/A	N/A	N/A	N/A	.9	1.0	1.2	1.0	1.1	1.3	1.3
Forest Service	129.3	112.5	108.1	108.8	114.8	114.0	127.1	138.4	133.0	157.3	150.2
Human Nutrition Info Service ..	-	8.5	8.2	6.0	6.7	12.8	6.8	8.2	8.4	9.0	10.7
National Agricultural Library .	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Dev	3.9	2.6	5.3	8.2	7.7	7.0	5.6	5.0	2.5	2.3	1.5
Office of Transportation 2/....	.9	.9	.8	1.0	1.2	1.0	1.1	1.1	-	-	-
Nat'l Agricultural Stat svc ...	7.5	7.0	7.6	8.2	8.4	8.0	3.4	3.6	2.9	3.1	3.2
Department of Commerce, total ...	329.3	337.3	335.7	367.6	403.0	408.4	407.5	400.2	407.0	439.9	442.4
Bureau of the Census	3.9	3.8	4.3	4.4	4.9	4.7	4.7	5.7	4.9	5.0	4.8
Economic Development Admin	28.1	9.6	5.3	5.1	13.0	10.3	5.0	4.2	1.0	1.2	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minority Business Dev Agency ..	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	83.0	89.9	95.7	104.9	104.7	108.5	100.7	118.7	124.2	143.1	158.1
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	202.2	222.0	222.0	244.3	269.8	276.2	289.3	263.5	269.1	282.7	271.1
Nat'l Telecomm & Info Admin ...	10.9	11.3	8.3	8.7	9.1	8.4	7.8	8.1	7.8	8.0	8.3
Office of Telecommunications ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.0	.0	.1	1.4	.3	.0	-	-	-	-
Patent and Trademark Office ...	1.1	.7	-	-	-	-	-	-	-	-	-
US Travel & Tourism Admin	-	-	-	-	-	-	-	-	-	-	-
Department of Defense, total	16,786.3	20,913.1	23,305.3	25,902.1	30,322.4	33,224.1	35,708.7	35,684.6	38,076.2	36,514.4	37,379.7
Department of the Army	3,257.0	3,785.2	4,024.4	4,281.7	4,623.7	4,863.3	5,085.2	4,898.8	5,704.5	5,651.4	6,272.7
Department of the Navy	5,103.9	6,001.0	6,209.9	7,779.0	9,309.5	9,747.9	9,576.8	9,588.9	9,755.7	9,693.6	9,449.0
Department of the Air Force ...	7,128.8	9,442.6	10,951.3	12,377.0	13,552.2	13,723.9	15,618.0	15,011.0	15,487.6	14,095.6	13,858.2
Defense agencies	1,255.6	1,643.3	2,058.1	1,405.7	2,786.3	4,771.9	5,291.8	5,957.3	6,973.3	6,819.1	7,398.1
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Test & Evaluation, Deputy under Secretary Defense	41.1	41.0	61.6	58.6	50.6	117.1	128.5	160.3	140.7	184.2	322.6
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	-	8.4	68.2	14.4	70.5	79.1
Department of Education, total ..	104.9	128.0	111.7	115.7	126.0	127.9	153.5	145.9	161.0	190.3	189.1
Department of Energy	5,896.4	5,622.2	5,294.4	5,526.0	5,834.4	5,430.6	5,529.4	5,951.4	6,065.6	6,741.3	7,100.6
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centers for Disease Control ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Care Financing Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Educ ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Hlth ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Child Development ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Human Development Svcs .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of International Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social & Rehabilitation Svc ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Continued on next page

Table C-146B. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	3,950.9	3,965.4	4,400.4	4,861.8	5,493.2	5,695.5	6,643.0	7,177.6	7,981.4	8,587.6	8,985.5
Alcohol, Drug Abuse & Mental Health Administration	239.7	251.4	304.0	337.5	377.9	396.6	476.1	554.8	695.7	820.5	919.7
Centers for Disease Control	74.8	75.0	78.2	46.3	47.6	52.2	66.2	88.7	117.8	125.9	130.8
Food & Drug Administration	72.6	75.0	102.7	80.8	95.1	87.4	85.8	91.5	122.0	110.5	133.0
Health Care Financing Admin	38.6	29.1	30.2	33.1	33.5	29.0	27.3	28.2	49.1	50.0	36.0
Health Resources Admin	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources & Svc's Admin	N/A	10.1	13.3	18.5	19.7	12.3	9.3	10.0	10.5	10.5	10.5
Health Services Administration	20.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	73.7	27.2	23.4	18.3	24.3	54.6	53.0	54.0	101.7	119.3	124.0
National Institutes of Health	3,355.5	3,452.6	3,806.8	4,285.2	4,856.5	5,034.5	5,886.2	6,309.9	6,833.8	7,271.0	7,562.6
Off of Asst't Secy for Hlth	33.1	16.1	16.6	18.1	18.6	17.3	21.2	21.0	27.2	56.9	47.3
Office of the Secretary	19.5	13.4	14.4	10.4	9.6	6.1	8.2	4.7	7.8	5.0	5.0
Social Security Administration	18.0	15.5	10.8	13.5	10.4	5.6	9.8	14.7	15.8	18.0	16.6
Dept of Housing & Urban Dev	48.1	28.9	32.1	18.2	18.5	15.3	16.3	18.4	18.0	21.0	48.4
Dept of the Interior, total	430.6	382.4	384.9	416.1	395.9	389.6	415.7	426.1	479.8	515.8	493.4
Bonneville Power Admin 7/	14.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Land Management	1.9	5.3	3.9	3.8	4.4	3.4	3.7	3.7	3.0	2.8	5.0
Bureau of Mines	97.4	94.8	88.6	108.8	89.9	84.4	88.8	91.3	101.2	105.2	78.3
Bureau of Reclamation	14.3	10.1	10.0	10.4	13.2	10.2	10.7	4.4	4.2	4.7	6.8
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	169.8	152.6	158.4	209.9	215.7	219.5	227.6	236.9	281.1	301.6	306.9
Heritage Conservation & Recreation Svc	-	-	-	-	-	-	-	-	-	-	-
Mineral Management Service	N/A	-	1.5	1.5	1.4	1.1	1.0	1.2	2.2	2.0	2.5
National Park Service	10.4	11.2	13.7	14.0	15.0	17.3	18.5	19.4	19.4	19.5	22.8
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	1.5	.5	7.4	.1	1.9	1.0	-	.4	.4	.5	.7
Off of Surface Mining Reclamation & Enforcement	5.8	1.5	1.5	.8	2.0	2.3	1.0	1.0	.7	.8	.8
Office of Water Rsch & Tech	21.8	12.3	2.2	3.6	-	-	-	-	-	-	-
US Fish & Wildlife Service	93.3	94.2	97.7	63.3	52.4	50.5	64.3	67.8	67.5	78.6	69.6
Department of Justice, total	26.5	26.7	31.4	24.5	36.0	36.5	53.5	43.1	38.2	41.7	41.5
Drug Enforcement Admin	1.3	3.2	2.5	1.9	1.6	2.5	2.2	2.5	2.7	4.5	5.0
Fed Bureau of Investigation	.7	2.7	2.5	1.0	9.5	7.2	19.1	12.7	7.7	5.8	6.6
Federal Prison System	2.5	1.7	1.7	1.6	1.5	3.0	7.1	6.0	5.1	4.5	4.6
Immigration & Naturalization Svc	.1	.6	.6	.6	.4	.4	.4	.3	.1	.4	.4
Office of Justice Programs	21.0	18.0	23.8	19.5	22.7	23.2	24.6	21.5	22.5	26.4	24.9
Office of Legal Policy	.8	.4	.3	-	.3	.2	.1	-	-	-	-
Department of Labor, total	62.2	25.4	19.9	16.3	13.3	10.4	21.6	35.6	35.4	36.5	43.0
Bureau of Labor Statistics	.3	.3	.7	.5	.6	.6	6.5	7.0	7.0	7.1	7.2
Employment Standards Admin	3.2	1.4	1.4	.9	.0	-	1.0	.1	.1	.3	.2
Employment & Training Admin	52.4	16.1	9.0	6.1	3.5	3.5	5.7	14.9	15.7	16.7	19.2
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	.3	.3	.2	.3	.4	.3	.1	.1
Labor-Management Svcs Admin 8/	1.8	.7	.9	-	-	-	-	-	-	-	-
Occupational Safety & Hlth Administration	3.0	4.9	5.3	5.1	4.5	3.6	4.1	4.2	4.5	4.1	4.1
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	1.2	1.6	.3	1.0	2.7	1.4	2.4	2.6
Office of the Secretary	1.1	.9	1.5	1.9	2.6	2.1	2.7	6.1	6.1	5.4	9.1
Pension Benefit Guarantee Corporation	.5	1.1	1.1	.3	.2	.1	.3	.3	.3	.5	.5
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Agency for Internat'l Dev 9/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Departmental funds	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Peace Corps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	434.5	322.0	369.6	465.2	437.9	397.5	335.5	317.9	318.1	389.2	412.5
Coast Guard	26.3	20.0	19.6	19.5	19.0	16.9	17.0	21.4	17.9	21.0	23.0
Federal Aviation Admin	128.9	99.4	147.6	282.6	294.8	271.5	177.7	173.8	162.3	233.8	226.1
Federal Highway Administration	51.2	40.3	50.4	46.4	49.0	46.1	76.3	73.5	90.3	82.2	105.6
Federal Railroad Admin	46.1	24.5	16.5	19.2	15.0	15.4	11.2	10.4	9.0	13.3	17.0
Maritime Administration	14.2	11.1	15.0	9.9	13.9	9.4	5.8	.5	-	-	-
Nat'l Highway Traffic Safety Administration	66.4	55.9	52.5	57.4	28.6	22.9	28.4	28.3	29.7	27.7	29.6
Office of the Secretary	10.1	3.3	4.9	4.9	4.8	5.1	4.5	5.7	5.5	7.1	7.2
Rsch & Special Programs Admin	13.1	6.1	6.2	5.2	2.7	2.0	2.1	2.1	2.0	2.6	2.3
Urban Mass Trans Admin	78.2	61.4	57.0	20.1	10.2	8.2	12.6	2.3	1.4	1.6	1.6

Continued on next page

Table C-146B. Federal obligations for research, development, and R&D plant, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	11.4	13.4	15.6	13.9	24.4	24.2	27.0	26.2	25.7	28.4	28.0
Bureau of Alcohol, Tobacco, & Firearms	.3	-	-	-	-	-	-	-	-	-	-
Bureau of Engraving & Printing	2.7	4.8	3.9	3.6	5.0	4.2	4.5	2.0	1.7	3.6	2.6
Internal Revenue Service	4.2	5.4	8.0	8.2	15.9	14.2	14.6	14.4	14.4	16.8	16.8
Office of Protective Research .	.6	-	.3	.2	.6	.5	.5	.4	.6	.5	.5
United States Customs Service .	3.5	3.2	3.4	1.9	2.3	4.9	7.1	9.3	6.9	6.3	8.1
United States Mint	-	-	-	-	.6	.3	.2	.1	2.0	1.2	-
Department of Veterans Affairs ..	159.2	140.1	171.9	196.4	229.9	191.0	215.4	234.8	245.7	247.1	216.9
Other Agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Advisory Comm on Intergov'tl Relations	2.2	2.0	2.1	2.1	2.4	2.1	1.9	1.8	1.1	1.4	1.4
Agency For International Dev 9/..	142.2	205.9	232.0	245.0	227.2	258.7	224.3	210.6	279.1	211.6	218.5
Appalachian Regional Commission .	.4	.4	.2	.5	.2	.2	.1	.2	.8	1.0	1.0
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Community Services Admin	18.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	.5	.2	.5	1.3	2.4	2.0	2.2	1.1	1.3	.9	.8
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	325.7	335.1	240.7	261.2	320.4	317.3	348.2	347.4	380.3	416.7	442.4
Federal Communications Comm	1.8	1.2	1.3	.9	1.2	.9	1.0	1.2	1.1	2.0	1.3
Fed Emergency Management Agency .	11.6	9.2	3.3	11.5	4.1	N/A	N/A	N/A	N/A	N/A	N/A
Federal Energy Administration ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	1.0	2.7	3.0	2.6	2.8	3.3	3.4	3.4	N/A	N/A	N/A
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.1	5.8	6.4
Federal Trade Commission	1.1	1.2	1.4	1.6	1.7	1.8	.5	.4	.4	.5	.5
General Services Admin	.6	1.0	.5	2.4	.4	20.0	1.6	2.3	.5	13.8	.1
International Trade Commission ..	3.4	3.8	4.7	5.0	5.8	6.9	7.2	8.1	8.7	9.6	10.5
Interstate Commerce Commission ..	-	-	-	-	-	-	-	-	-	-	-
Library of Congress	4.9	5.7	7.4	7.5	7.1	6.6	6.5	7.1	8.0	8.0	10.8
Nat'l Aeronautics & Space Admin .	3,708.9	3,191.6	2,762.9	3,066.1	3,561.5	3,694.8	4,096.5	4,758.6	5,913.0	7,487.9	9,144.4
National Archives	N/A	N/A	N/A	N/A	.5	1.0	1.1	.7	.3	.3	.6
National Science Foundation	976.2	976.8	1,065.2	1,248.0	1,419.1	1,406.5	1,531.8	1,589.6	1,724.0	1,885.2	2,137.4
Nuclear Regulatory Commission ...	227.3	220.3	207.3	190.7	150.0	123.8	122.5	108.5	114.8	109.3	116.2
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	8.4	-	-	-	-	-	-	-	-	-	-
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Small Business Administration ...	-	-	-	-	-	-	-	-	-	-	-
Smithsonian Institution	45.3	52.9	57.0	63.8	72.7	64.0	74.4	75.8	83.6	92.3	104.2
Spec Action Off for Drug Abuse Prevention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee Valley Authority	69.3	85.3	63.3	68.3	80.0	78.3	78.2	87.7	62.8	54.6	50.0
US Arms Control & Disarmament Agency	2.4	1.9	1.0	1.3	1.1	.9	4.6	3.4	2.8	.6	2.0
US Information Agency 11/.....	1.5	.1	.0	1.4	.1	2.0	3.5	.4	.1	.3	.4

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-147A. Federal obligations for research and development, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	15,338.9	15,542.5	16,495.9	16,800.2	17,410.1	19,038.8	20,779.7	23,450.4	25,845.1	28,145.1	29,830.4
Department of Agriculture, total	281.2	304.9	349.6	366.5	378.7	420.1	462.4	547.0	621.3	663.0	687.6
Agricultural Cooperative Svc 1/	.9	1.0	1.1	1.2	1.4	1.2	1.2	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/..	N/A	N/A	-	-	-	-	-	-	-	1.0	1.3
Agricultural Research Svc 3/...	160.6	173.5	193.8	199.5	203.5	217.1	242.1	298.9	325.5	345.8	351.8
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/..	61.1	67.8	82.6	89.4	89.4	101.1	113.4	127.3	157.4	172.6	184.2
Econ, Stat & Coop Svc 5/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.5	32.7	35.5	N/A
Economic Research Service	14.9	15.5	16.0	16.9	18.1	21.3	24.0	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.1
Federal Grain Inspection Svc ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	42.8	46.0	55.2	58.4	65.5	78.2	79.9	90.3	105.6	107.5	111.5
Human Nutrition Info Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library .	.2	.4	.2	.3	.1	.0	.0	-	-	-	-
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	5.3
Office of Transportation 2/....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.7	.8
Nat'l Agricultural Stat svc ...	.7	.7	.7	.7	.6	1.2	1.9	N/A	N/A	N/A	N/A
Department of Commerce, total ...	121.6	143.7	187.3	190.6	180.6	215.4	228.9	244.7	283.7	309.4	342.5
Bureau of the Census	3.0	4.1	3.9	1.0	1.0	1.0	2.5	2.6	3.4	3.1	3.2
Economic Development Admin	8.8	4.6	6.6	6.3	4.1	10.3	15.1	15.0	38.5	43.1	32.3
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	12.6	20.7	22.2	23.8	23.1	22.9	19.0	14.8	19.6	19.6	19.4
Minority Business Dev Agency ..	3.5	-	.5	2.1	1.0	4.6	2.0	3.4	-	-	-
Nat'l Inst of Standards & Tech	29.6	32.6	34.7	36.8	40.2	43.2	47.4	53.2	58.3	67.8	76.2
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	3.6	6.4	6.6	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	63.8	79.0	115.2	115.6	109.1	128.0	135.1	145.7	161.5	171.2	199.8
Nat'l Telecomm & Info Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.9	1.8	4.1	10.7
Office of Telecommunications ..	-	2.1	3.6	3.5	1.6	1.3	.9	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	.1	.6
Patent and Trademark Office ...	.4	.6	.6	.6	.5	.5	.4	.5	.5	.5	.5
US Travel & Tourism Admin	-	-	-	.8	-	-	-	-	-	-	-
Department of Defense, total	7,360.4	7,509.0	8,318.1	8,404.2	8,420.4	9,012.5	9,654.7	10,963.4	11,553.6	12,506.2	13,981.0
Department of the Army	1,659.8	1,682.4	2,064.2	2,013.6	2,009.9	1,896.7	2,013.7	2,441.9	2,548.9	2,768.7	2,980.0
Department of the Navy	2,257.9	2,283.7	2,519.4	2,654.8	2,718.5	3,100.2	3,328.0	3,817.4	3,998.4	4,335.0	4,706.1
Department of the Air Force ...	2,990.0	3,113.5	3,254.3	3,273.5	3,216.2	3,513.5	3,726.6	4,031.1	4,262.3	4,525.6	5,211.0
Defense agencies	448.6	426.5	476.4	434.1	448.9	476.5	561.6	641.4	707.9	847.6	1,046.0
Defense Civil Preparedness Agency	4.1	3.0	4.0	3.2	2.7	1.7	.7	1.3	7.5	N/A	N/A
Test & Evaluation, Deputy under Secretary Defense	N/A	N/A	N/A	25.1	24.2	23.9	24.1	30.2	28.6	29.3	37.9
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	166.3	139.4
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,536.2	4,244.8	4,638.8	4,753.7
Dept of Hlth, Education, & Welfare, total	1,221.0	1,476.1	1,751.1	1,837.6	2,290.1	2,397.5	2,583.6	2,823.3	3,207.3	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	122.2	155.6	139.4	139.5	153.0	180.2	N/A	N/A
Centers for Disease Control ...	N/A	N/A	N/A	38.6	44.9	42.6	49.6	55.3	60.1	N/A	N/A
Environmental Health Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	21.8	25.6	30.4	30.2	43.5	35.9	37.1	42.9	64.1	N/A	N/A
Health Care Financing Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.0	19.4	N/A	N/A
Health Resources Admin	N/A	N/A	-	52.7	55.8	43.3	38.2	7.4	5.5	N/A	N/A
Health Services Administration	N/A	N/A	N/A	13.2	12.5	17.3	17.5	17.7	18.2	N/A	N/A
Hlth Svcs & Mental Hlth Admin .	188.4	222.9	244.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education ..	N/A	N/A	-	106.8	75.7	69.9	63.7	64.9	89.5	N/A	N/A
National Institutes of Health .	873.3	1,039.0	1,271.3	1,314.2	1,736.8	1,879.9	2,060.2	2,279.9	2,580.9	N/A	N/A
Off of Asst't Secy for Educ ...	-	-	-	-	-	.6	1.0	1.0	1.3	N/A	N/A
Off of Asst't Secy for Hlth ...	-	-	-	-	-	-	-	32.2	36.2	N/A	N/A
Office of Child Development ...	2.0	11.2	17.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	88.2	132.4	130.1	58.3	51.5	45.9	58.2	31.1	32.9	N/A	N/A
Off of Human Development Svcs .	-	-	-	28.8	53.0	64.3	61.9	76.8	75.8	N/A	N/A
Office of International Health	-	-	-	.7	2.7	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	-	-	-	29.8	26.2	23.7	20.0	30.2	N/A	N/A
Social & Rehabilitation Svc ...	34.9	34.1	43.8	53.5	8.9	9.6	18.6	N/A	N/A	N/A	N/A
Social Security Administration	12.4	10.9	13.6	18.5	19.4	22.6	14.4	11.2	12.9	N/A	N/A

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Table C-147A. Federal obligations for research and development, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,504.9	3,780.2
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	214.3	233.5
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	76.3	87.3
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	61.0	75.4
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.8	45.7
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.9	5.1
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	28.7	26.7
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	57.1	49.3
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,953.1	3,181.8
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	34.6	29.9
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.7	24.0
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.3	21.4
Dept of Housing & Urban Dev	29.9	47.7	49.1	57.8	64.8	62.0	67.6	52.1	69.7	67.9	56.0
Dept of the Interior, total	156.8	191.5	218.7	243.7	192.4	303.3	333.2	314.7	359.0	405.8	411.3
Bonneville Power Admin 7/	1.8	1.9	2.5	2.8	2.4	6.0	7.0	N/A	N/A	N/A	N/A
Bureau of Land Management	.7	.8	.8	.7	.7	.8	.7	.9	1.2	1.3	1.7
Bureau of Mines	46.5	60.3	70.9	77.5	66.1	107.6	131.3	101.9	114.0	121.0	113.4
Bureau of Reclamation	7.3	9.2	10.2	9.7	7.4	7.8	8.3	9.9	11.2	12.2	14.1
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	39.9	41.9	51.5	66.6	66.2	106.6	110.3	117.5	133.7	145.6	146.3
Heritage Conservation & Recreation Svc	.1	.2	.0	.0	.0	.0	.0	.0	-	-	-
Mineral Management Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Park Service	-	1.1	1.3	1.5	2.5	8.4	9.3	7.8	7.7	8.9	8.2
Office of Coal Research	5.7	16.4	20.3	26.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.2	1.4	21.3	.5	1.7	1.0	4.5	1.7	1.4	2.2
Off of Surface Mining Reclamation & Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.2	5.0	7.5
Office of Water Rsch & Tech	34.9	36.4	38.0	13.3	22.3	19.5	19.0	15.1	27.4	27.2	29.3
US Fish & Wildlife Service	20.0	23.0	21.9	23.7	24.3	45.0	46.2	57.1	59.9	83.1	88.6
Department of Justice, total	8.6	10.3	23.4	33.2	34.7	44.3	33.9	27.7	60.9	43.0	41.5
Drug Enforcement Admin	.8	1.5	1.2	1.6	5.0	1.5	2.5	3.0	1.9	2.4	2.7
Fed Bureau of Investigation	.2	1.0	.7	.7	1.9	1.2	1.2	1.4	1.8	3.1	1.4
Federal Prison System	.2	.4	.5	.5	.5	.6	.8	1.1	3.6	3.4	2.1
Immigration & Naturalization Svc	-	-	-	-	-	.1	.1	.3	.4	.2	.3
Office of Justice Programs	7.4	7.5	21.0	30.4	27.3	40.9	29.2	21.8	51.6	32.2	33.2
Office of Legal Policy	-	-	-	-	-	-	-	-	1.6	1.7	1.8
Department of Labor, total	20.6	22.8	23.1	19.9	23.8	25.4	28.5	29.6	97.8	137.0	138.1
Bureau of Labor Statistics	3.8	3.8	4.8	1.0	1.7	1.8	1.3	1.4	1.2	.9	.9
Employment Standards Admin	2.2	1.5	1.6	1.3	.9	3.2	4.3	4.4	3.7	5.3	4.9
Employment & Training Admin	14.3	16.5	15.6	14.6	16.1	15.5	17.5	16.8	86.6	120.8	121.7
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Labor-Management Svcs Admin 8/	.3	.5	.7	.9	1.2	.8	.7	3.3	2.8	3.2	2.8
Occupational Safety & Hlth Administration	N/A	.3	.2	.9	1.4	2.0	2.9	3.4	1.3	5.1	6.3
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	.2	.2	1.2	2.5	2.0	1.8	.2	2.2	1.6	1.4
Pension Benefit Guarantee Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Post Office Department	38.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	27.6	30.1	26.6	26.2	22.5	27.9	39.4	61.4	85.2	3.2	2.2
Agency for Internat'l Dev 9/	27.3	29.7	26.0	24.7	21.1	26.7	37.8	59.1	82.4	N/A	N/A
Departmental funds	.1	.4	.6	1.5	1.5	1.2	1.6	2.3	2.8	3.2	2.2
Peace Corps	.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	327.8	497.2	310.5	310.6	369.8	311.6	294.5	354.6	408.3	370.1	361.2
Coast Guard	18.4	21.6	30.3	27.7	21.6	15.9	12.4	18.9	23.7	21.1	18.0
Federal Aviation Admin	56.1	346.3	100.9	79.5	125.0	105.6	98.1	103.4	110.5	110.5	103.1
Federal Highway Administration	32.8	26.8	20.7	23.6	40.8	44.7	28.9	55.5	51.7	52.9	51.1
Federal Railroad Admin	11.5	21.6	26.3	35.5	33.5	32.4	50.4	41.9	53.9	44.2	46.2
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Highway Traffic Safety Administration	19.5	26.7	50.0	54.6	53.6	34.0	31.4	47.0	66.3	56.6	63.6
Office of the Secretary	169.5	15.3	23.6	23.6	29.7	31.3	25.8	28.0	31.7	11.7	10.8
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.9	15.0	14.0
Urban Mass Trans Admin	20.0	39.0	58.8	66.2	65.6	47.7	47.5	89.9	69.6	58.0	54.4

Continued on next page

Table C-147A. Federal obligations for research and development, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.6	0.8	1.3	1.0	1.1	1.7	3.7	4.8	9.9	9.5	12.0
Bureau of Alcohol, Tobacco, & Firearms	N/A	N/A	-	-	-	-	-	1.1	2.0	2.5	1.6
Bureau of Engraving & Printing	.6	.8	1.3	1.0	1.1	1.7	2.8	2.5	3.7	2.1	2.3
Internal Revenue Service	-	-	-	-	-	-	-	-	2.4	3.6	4.0
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.4
United States Customs Service .	-	-	-	-	-	-	1.0	1.2	1.8	1.3	3.8
United States Mint	-	-	-	-	-	-	-	-	-	-	-
Department of Veterans Affairs ..	58.6	62.9	69.1	74.3	84.8	94.8	97.7	107.0	114.0	127.0	133.4
Other Agencies											
Action	N/A	.1	-	-	.2	.2	.1	.5	1.6	1.6	-
Advisory Comm on Intergov'tl Relations	.6	.5	.7	.9	1.1	1.2	1.0	1.5	1.7	1.7	2.2
Agency For International Dev 9/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	106.5	149.3
Appalachian Regional Commission .	-	3.0	-	-	-	-	.7	.7	.5	.9	.8
Atomic Energy Commission	1,346.0	1,302.9	1,297.7	1,363.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.4	.6	1.0	2.4	3.1	4.4	4.0	3.9	N/A	N/A	N/A
Community Services Admin	N/A	N/A	N/A	N/A	21.7	23.1	10.2	24.0	24.3	20.7	30.3
Consumer Product Safety Comm	N/A	N/A	-	.3	4.3	6.0	5.6	6.7	3.8	3.9	3.5
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	1,488.9	2,047.3	2,463.8	N/A	N/A	N/A	N/A
Environmental Protection Agency .	88.5	136.7	122.4	180.6	169.2	257.7	259.1	295.5	384.6	410.1	345.0
Federal Communications Comm	1.0	.6	.7	1.1	.9	1.1	1.5	2.0	2.4	2.9	3.4
Fed Emergency Management Agency .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.0	12.6	11.8
Federal Energy Administration ...	N/A	N/A	N/A	N/A	-	1.3	3.0	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	.4	.4	.5	.5	.7	.7	.8	1.7	1.0	.9	1.2
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Trade Commission	.4	.4	.6	.7	.9	.9	.9	1.1	1.4	1.5	3.0
General Services Admin	.3	.2	.3	.5	1.8	1.8	1.1	.9	2.7	.5	.2
International Trade Commission ..	-	-	-	-	-	-	1.5	2.6	3.1	3.4	2.1
Interstate Commerce Commission ..	-	-	-	-	-	-	.1	.1	.3	.2	.1
Library of Congress	1.9	2.5	2.3	2.6	2.2	2.6	3.0	3.8	4.9	5.9	6.9
Nat'l Aeronautics & Space Admin .	3,799.9	3,257.9	3,157.2	3,060.9	3,002.2	3,064.4	3,446.8	3,170.8	3,333.3	3,578.4	3,234.1
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	289.0	336.9	454.8	479.9	556.4	595.0	609.3	697.0	748.8	807.9	881.8
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	42.3	64.2	88.4	112.3	133.9	148.8	182.7
Office of Economic Opportunity ..	123.4	134.0	92.7	87.8	-	-	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	1.0	.6	.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.5	6.0	6.8
Office of Science and Technology	1.9	2.0	2.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	.2	1.2	.6	.3	4.1	4.6	-	-	N/A	N/A
Postal Service	N/A	39.7	-	-	-	-	-	-	-	-	-
Small Business Administration ...	.1	-	-	-	-	.2	.1	.5	-	-	-
Smithsonian Institution	18.2	15.1	21.3	24.0	24.7	24.8	25.7	29.7	34.9	36.9	41.0
Spec Action Off for Drug Abuse Prevention	N/A	N/A	-	12.0	11.1	3.8	-	N/A	N/A	N/A	N/A
Tennessee Valley Authority	8.2	9.3	10.1	14.3	13.2	16.6	18.7	26.5	31.5	38.4	80.1
US Arms Control & Disarmament Agency	4.2	1.7	1.9	2.0	1.1	1.0	1.4	2.2	3.6	3.5	3.8
US Information Agency 11/.....	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-147B. Federal obligations for research and development, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	33,103.9	36,432.6	38,711.5	42,224.9	48,359.6	51,412.4	55,253.1	56,935.1	61,405.8	62,320.1	66,107.3
Department of Agriculture, total	774.0	797.3	847.6	866.2	943.0	928.5	947.9	1,016.6	1,038.3	1,103.6	1,157.6
Agricultural Cooperative Svc 1/	1.7	1.7	2.1	2.2	2.9	2.6	2.7	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/	1.1	1.2	1.4	1.5	1.7	1.6	1.5	1.6	1.5	1.6	1.7
Agricultural Research Svc 3/	394.1	404.9	443.4	451.3	469.7	463.4	478.6	505.7	523.5	546.9	587.8
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	5.6	7.4	7.8	8.3
Cooperative State Rsch Svc 4/	199.4	219.0	232.3	235.7	284.3	269.0	270.7	298.4	307.3	324.9	335.4
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Service	39.3	39.3	38.8	43.7	46.4	44.6	44.8	48.1	49.5	51.0	56.3
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	.9	1.0	1.2	1.0	1.1	1.3	1.3
Forest Service	126.1	112.1	107.7	108.4	113.1	113.3	126.7	135.5	131.4	152.9	148.7
Human Nutrition Info Service	-	8.5	8.2	6.0	6.7	12.8	6.8	8.2	8.4	9.0	10.7
National Agricultural Library	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Dev	3.9	2.6	5.3	8.2	7.7	7.0	5.6	5.0	2.5	2.3	1.5
Office of Transportation 2/	.9	.9	.8	1.0	1.2	1.0	1.1	1.1	-	-	-
Nat'l Agricultural Stat svc	7.5	7.0	7.6	8.2	8.4	8.0	3.4	3.6	2.9	3.1	3.2
Department of Commerce, total	327.9	336.3	335.0	358.2	398.8	399.2	402.2	388.9	397.9	424.0	425.8
Bureau of the Census	3.9	3.8	4.3	4.4	4.9	4.7	4.7	5.7	4.9	5.0	4.8
Economic Development Admin	28.1	9.6	5.3	5.1	13.0	10.3	5.0	4.2	1.0	1.2	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minority Business Dev Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	82.5	88.8	95.0	95.5	100.5	100.8	98.6	107.9	115.5	133.0	145.1
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	201.4	222.0	222.0	244.3	269.8	274.7	286.1	263.0	268.6	276.9	267.5
Nat'l Telecomm & Info Admin	10.9	11.3	8.3	8.7	9.1	8.4	7.8	8.1	7.8	8.0	8.3
Office of Telecommunications	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.0	.0	.1	1.4	.3	.0	-	-	-	-
Patent and Trademark Office	1.1	.7	-	-	-	-	-	-	-	-	-
US Travel & Tourism Admin	-	-	-	-	-	-	-	-	-	-	-
Department of Defense, total	16,508.6	20,622.6	22,992.8	25,372.9	29,791.5	32,937.9	35,231.5	35,415.1	37,576.9	35,899.1	36,918.0
Department of the Army	3,244.2	3,760.5	3,998.1	4,225.5	4,570.8	4,809.4	5,019.5	4,806.0	5,659.3	5,592.5	6,227.5
Department of the Navy	5,006.0	5,845.1	6,068.2	7,605.6	9,127.4	9,650.3	9,507.8	9,514.1	9,666.1	9,588.9	9,357.5
Department of the Air Force	6,969.2	9,357.9	10,812.6	12,091.6	13,260.9	13,593.8	15,347.7	15,033.6	15,237.4	13,719.5	13,583.0
Defense agencies	1,248.2	1,618.1	2,052.3	1,391.5	2,781.7	4,767.4	5,219.7	5,832.9	6,858.9	6,743.6	7,348.4
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Test & Evaluation, Deputy under Secretary Defense	41.1	41.0	61.6	58.6	50.6	117.1	128.5	160.3	140.7	184.2	322.6
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	-	8.4	68.2	14.4	70.5	79.1
Department of Education, total	104.9	128.0	111.7	115.7	124.9	121.3	132.5	140.7	159.1	181.0	187.3
Department of Energy	4,918.2	4,708.2	4,536.7	4,673.6	4,966.0	4,688.3	4,757.2	5,036.4	[illegible]	5,697.5	6,006.3
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Educ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Child Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Human Development Svcs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of International Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social & Rehabilitation Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Continued on next page

Table C-147B. Federal obligations for research and development, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	3,927.1	3,940.7	4,352.5	4,830.7	5,451.0	5,657.6	6,606.3	7,158.0	7,902.8	8,457.4	8,887.9
Alcohol, Drug Abuse & Mental Health Administration	239.4	248.1	302.2	337.2	377.6	396.1	475.5	554.8	695.7	820.5	919.7
Centers for Disease Control	74.8	75.0	78.2	46.3	47.6	52.2	66.2	88.7	117.8	125.9	130.8
Food & Drug Administration	71.4	73.0	74.2	77.8	82.1	79.4	85.0	91.0	99.0	110.0	125.5
Health Care Financing Admin	38.6	29.1	30.2	33.1	33.5	29.0	27.3	28.2	49.1	50.0	36.0
Health Resources Admin	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources & Svc's Admin	N/A	10.1	13.3	18.5	19.7	12.3	9.3	10.0	10.5	10.5	10.5
Health Services Administration	20.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	73.7	27.2	23.4	18.3	24.3	54.6	53.0	54.0	101.7	119.3	124.0
National Institutes of Health	3,333.2	3,433.1	3,789.2	4,257.4	4,827.7	5,005.1	5,850.9	6,290.9	6,778.3	7,141.3	7,472.5
Off of Asst't Secy for Hlth	33.1	16.1	16.6	18.1	18.6	17.3	21.2	21.0	27.2	56.9	47.3
Office of the Secretary	19.5	13.4	14.4	10.4	9.6	6.1	8.2	4.7	7.8	5.0	5.0
Social Security Administration	18.0	15.5	10.8	13.5	10.4	5.6	9.8	14.7	15.8	18.0	16.6
Dept of Housing & Urban Dev	48.1	28.9	32.1	18.2	18.5	15.3	16.3	18.4	18.0	21.0	48.4
Dept of the Interior, total	427.1	381.1	382.5	410.9	391.7	385.2	403.8	416.8	469.0	504.4	489.1
Bonneville Power Admin 7/	14.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Land Management	1.9	5.3	3.9	3.8	4.4	3.4	3.7	3.7	3.0	2.8	5.0
Bureau of Mines	96.7	94.7	88.5	108.8	89.9	84.4	88.8	91.3	98.7	104.8	77.7
Bureau of Reclamation	14.3	10.1	10.0	10.4	13.2	10.2	10.7	4.4	4.2	4.7	6.8
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	169.8	152.6	157.0	208.9	214.9	218.6	226.8	236.1	279.9	300.3	305.1
Heritage Conservation & Recreation Svc	-	-	-	-	-	-	-	-	-	-	-
Mineral Management Service	N/A	-	1.5	1.5	1.4	1.1	1.0	1.2	2.2	2.0	2.5
National Park Service	10.4	11.2	13.7	14.0	15.0	17.3	18.5	19.4	19.4	19.5	22.8
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	1.5	.5	7.4	.1	1.9	1.0	-	.4	.4	.5	.7
Off of Surface Mining Reclamation & Enforcement	5.8	1.5	1.5	.8	2.0	2.3	1.0	1.0	.7	.8	.8
Office of Water Rsch & Tech	21.1	11.4	2.2	3.6	-	-	-	-	-	-	-
US Fish & Wildlife Service	91.5	93.9	96.7	59.1	49.0	47.0	53.3	59.2	60.6	69.1	67.7
Department of Justice, total	26.5	26.7	31.4	24.5	36.0	36.5	42.4	43.1	38.2	41.7	41.5
Drug Enforcement Admin	1.3	3.2	2.5	1.9	1.6	2.5	2.2	2.5	2.7	4.5	5.0
Fed Bureau of Investigation	.7	2.7	2.5	1.0	9.5	7.2	8.0	12.7	7.7	5.8	6.6
Federal Prison System	2.5	1.7	1.7	1.6	1.5	3.0	7.1	6.0	5.1	4.5	4.6
Immigration & Naturalization Svc	.1	.6	.6	.6	.4	.4	.4	.3	.1	.4	.4
Office of Justice Programs	21.0	18.0	23.8	19.5	22.7	23.2	24.6	21.5	22.5	26.4	24.9
Office of Legal Policy	.8	.4	.3	-	.3	.2	.1	-	-	-	-
Department of Labor, total	62.2	25.4	19.9	16.3	13.3	10.4	21.6	35.6	35.4	36.5	43.0
Bureau of Labor Statistics	.3	.3	.7	.5	.6	.6	6.5	7.0	7.0	7.1	7.2
Employment Standards Admin	3.2	1.4	1.4	.9	.0	-	1.0	.1	.1	.3	.2
Employment & Training Admin	52.4	16.1	9.0	6.1	3.5	3.5	5.7	14.9	15.7	16.7	19.2
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	.3	.3	.2	.3	.4	.3	.1	.1
Labor-Management Svcs Admin 8/	1.8	.7	.9	-	-	-	-	-	-	-	-
Occupational Safety & Hlth Administration	3.0	4.9	5.3	5.1	4.5	3.6	4.1	4.2	4.5	4.1	4.1
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	1.2	1.6	.3	1.0	2.7	1.4	2.4	2.6
Office of the Secretary	1.1	.9	1.5	1.9	2.6	2.1	2.7	6.1	6.1	5.4	9.1
Pension Benefit Guarantee Corporation	.5	1.1	1.1	.3	.2	.1	.3	.3	.3	.5	.5
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Agency for Internat'l Dev 9/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Departmental funds	1.8	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Peace Corps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	415.5	310.1	347.7	448.3	428.9	385.5	324.3	304.0	302.6	369.9	390.2
Coast Guard	26.3	20.0	19.6	19.5	19.0	16.9	17.0	21.1	17.9	21.0	23.0
Federal Aviation Admin	120.0	94.3	126.2	266.2	286.3	260.6	167.3	160.5	146.8	215.2	205.3
Federal Highway Administration	51.2	40.3	50.4	46.4	49.0	45.5	76.0	73.5	90.3	82.2	105.6
Federal Railroad Admin	36.6	18.2	16.5	19.2	15.0	15.4	11.2	10.0	9.0	12.5	15.5
Maritime Administration	14.2	11.1	15.0	9.9	13.9	9.4	5.8	.5	-	-	-
Nat'l Highway Traffic Safety Administration	65.9	55.4	52.0	56.9	28.1	22.4	27.9	28.3	29.7	27.7	29.6
Office of the Secretary	10.1	3.3	4.9	4.9	4.8	5.1	4.5	5.7	5.5	7.1	7.2
Rsch & Special Programs Admin	13.1	6.1	6.2	5.2	2.7	2.0	2.1	2.1	2.0	2.6	2.3
Urban Mass Trans Admin	78.2	61.4	57.0	20.1	10.2	8.2	12.6	2.3	1.4	1.6	1.6

Continued on next page

Table C-147B. Federal obligations for research and development, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	11.3	13.3	15.6	13.9	24.3	24.0	26.9	26.1	25.6	28.3	27.9
Bureau of Alcohol, Tobacco, & Firearms	.3	-	-	-	-	-	-	-	-	-	-
Bureau of Engraving & Printing	2.7	4.8	3.9	3.6	5.0	4.2	4.5	2.0	1.7	3.6	2.6
Internal Revenue Service	4.2	5.4	8.0	8.2	15.9	14.2	14.6	14.4	14.4	16.8	16.8
Office of Protective Research .	.6	-	.3	.2	.6	.4	.5	.4	.6	.5	.5
United States Customs Service .	3.5	3.1	3.3	1.8	2.2	4.8	7.0	9.2	6.8	6.2	8.0
United States Mint	-	-	-	-	.6	.3	.2	.1	2.0	1.2	-
Department of Veterans Affairs ..	144.4	137.3	161.4	190.3	226.6	186.2	209.5	215.3	234.7	239.3	211.5
Other Agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Advisory Comm on Intergov't Relations	2.2	2.0	2.1	2.1	2.4	2.1	1.9	1.8	1.1	1.4	1.4
Agency For International Dev 9/..	134.2	199.9	227.3	237.2	220.4	251.2	217.5	204.4	279.1	211.6	218.5
Appalachian Regional Commission .	.4	.4	.2	.5	.2	.2	.1	.2	.8	1.0	1.0
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Community Services Admin	18.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	.5	.2	.5	1.3	2.4	2.0	2.2	1.1	1.3	.9	.8
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	325.7	335.1	240.7	261.2	320.4	317.3	248.2	347.4	380.3	416.7	442.4
Federal Communications Comm	1.8	1.2	1.3	.9	1.2	.9	1.0	1.2	1.1	2.0	1.3
Fed Emergency Management Agency .	11.6	9.2	3.3	11.5	4.1	N/A	N/A	N/A	N/A	N/A	N/A
Federal Energy Administration ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	1.0	2.7	3.0	2.6	2.8	3.3	3.4	3.4	N/A	N/A	N/A
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.1	5.8	6.4
Federal Trade Commission	1.1	1.2	1.4	1.6	1.7	1.8	.5	.4	.4	.5	.5
General Services Admin	.6	1.0	.5	2.4	.4	1.2	1.6	2.3	.5	.8	.1
International Trade Commission ..	3.4	3.8	4.7	5.0	5.8	6.9	7.2	8.1	8.7	9.6	10.5
Interstate Commerce Commission ..	-	-	-	-	-	-	-	-	-	-	-
Library of Congress	4.9	5.7	7.4	7.5	7.1	6.6	6.5	7.1	8.0	8.0	10.8
Nat'l Aeronautics & Space Admin .	3,593.2	3,077.9	2,661.6	2,821.9	3,327.2	3,419.8	3,787.1	4,330.4	5,393.5	6,635.4	8,322.1
National Archives	N/A	N/A	N/A	N/A	.5	1.0	1.1	.7	.3	.3	.6
National Science Foundation	961.6	975.3	1,062.0	1,202.8	1,345.6	1,353.3	1,470.5	1,532.8	1,670.4	1,765.8	1,983.4
Nuclear Regulatory Commission ...	219.7	220.3	207.3	190.7	150.0	123.8	122.5	108.5	114.8	109.3	116.2
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	8.4	-	-	-	-	-	-	-	-	-	-
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Small Business Administration ...	-	-	-	-	-	-	-	-	-	-	-
Smithsonian Institution	44.9	52.4	56.0	63.6	71.1	63.3	71.5	75.1	80.2	87.5	100.1
Spec Action Off for Drug Abuse Prevention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee Valley Authority	68.9	85.0	63.0	68.1	79.5	77.5	77.9	87.3	62.6	54.3	49.9
US Arms Control & Disarmament Agency	2.4	1.9	1.0	1.3	1.1	.9	3.6	3.4	2.8	.6	2.0
US Information Agency 11/.....	1.5	.1	.0	1.4	.1	2.0	3.5	.4	.1	.3	.4

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Maketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-148A. Federal obligations for R&D plant, by agency: fiscal years 1970-80

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	524.4	611.2	602.1	774.3	766.3	820.7	836.7	1,367.2	1,295.7	1,475.5	1,555.7
Department of Agriculture, total	5.3	5.1	7.8	2.9	8.8	7.8	16.1	12.9	24.7	22.6	56.9
Agricultural Research Svc 1/	3.3	4.1	4.2	1.7	4.7	4.5	13.2	11.1	22.0	19.1	53.2
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 2/	1.0	-	-	-	-	-	-	-	-	-	-
Forest Service	.9	1.0	3.6	1.2	4.1	3.3	2.9	1.8	2.7	3.5	3.6
Department of Commerce, total	3.9	9.2	7.4	7.9	11.6	9.5	6.6	7.1	4.1	2.4	4.6
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	-	3.6	.7	2.1	2.8	1.1	2.2	4.9	1.0	.9	.5
Nat'l Inst of Standards & Tech	1.2	1.2	1.8	2.1	.9	1.4	.5	.7	.8	1.5	.3
Nat'l Oceanic & Atmospheric Administration	2.7	4.4	4.9	3.7	7.9	7.1	4.0	1.5	2.3	-	3.9
Department of Defense, total	140.6	153.7	174.7	146.4	169.1	167.1	143.4	445.6	232.6	270.2	208.2
Department of the Army	27.2	43.6	39.5	17.1	32.1	23.9	12.3	16.3	7.6	3.8	13.8
Department of the Navy	18.2	28.0	40.4	35.7	54.0	62.7	45.8	61.2	48.3	68.1	83.2
Department of the Air Force	59.2	49.7	70.8	70.6	67.7	59.6	73.0	350.0	160.1	167.5	108.0
Defense agencies	36.0	32.3	24.1	23.0	15.3	20.9	12.3	18.1	16.6	30.8	3.2
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	561.0	690.7	844.4	1,024.1
Dept of Hlth, Education, & Welfare, total	31.2	17.4	55.0	41.6	40.9	39.1	33.1	132.6	74.3	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	.0	-	-	-	-	-	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	-	-	-	.2	.4	.7	.9	.8	.9	N/A	N/A
Hlth Svcs & Mental Hlth Admin	-	.6	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	19.9	16.3	49.8	41.3	40.5	38.4	32.2	131.8	73.4	N/A	N/A
Office of Education	11.3	.5	.1	-	-	-	-	-	-	N/A	N/A
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	53.5	30.6
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.1	-
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5.8	1.2
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	47.6	29.4
Dept of the Interior, total	10.6	8.5	13.8	22.0	2.1	3.9	5.9	5.0	15.0	5.0	7.5
Bonneville Power Admin 3/	.3	1.0	.8	.2	.1	.1	.1	N/A	N/A	N/A	N/A
Bureau of Mines	-	-	-	-	-	-	-	3.4	7.1	.3	1.0
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	-	-	.0	.7	.4	-	-	-	-	-	-
National Park Service	-	-	-	-	-	.0	.0	.0	-	-	-
Office of Coal Research	7.8	2.4	12.1	19.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	.1	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	.3
Office of Water Rsch & Tech	2.0	4.9	.3	-	.5	-	-	.9	.6	.7	.7
US Fish & Wildlife Service	.5	.2	.6	1.2	1.2	3.8	5.8	.6	7.3	4.0	5.5
Department of Justice, total	-	-	-	-	-	-	-	-	-	-	-
Fed Bureau of Investigation	-	-	-	-	-	-	-	-	-	-	-
Post Office Department	.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	.1	8.9	2.6	.4	.4	-	5.1	16.2	.2	-	-
Agency for Internat'l Dev 4/	.1	8.9	2.6	.4	.4	-	5.1	16.2	.2	N/A	N/A
Dept of Transportation, total	5.5	10.8	25.8	38.2	13.4	13.3	14.2	22.5	14.1	22.6	23.3
Coast Guard	.3	1.6	8.6	17.1	5.1	.6	.4	.6	.7	-	-
Federal Aviation Admin	.2	1.1	1.5	1.5	.4	3.4	2.0	3.0	1.0	9.9	5.7
Federal Highway Administration	.1	.4	.2	.2	.4	.4	.4	.4	.4	.6	7.2
Federal Railroad Admin	4.8	3.7	10.3	11.4	3.9	7.0	10.1	16.6	11.8	11.9	10.2
Nat'l Highway Traffic Safety Administration	-	-	-	-	-	-	-	.2	.2	.2	.2
Urban Mass Trans Admin	-	4.0	5.2	8.2	3.7	1.8	1.3	1.7	-	-	-

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Table C-148A. Federal obligations for R&D plant, by agency: fiscal years 1970-80--Continued

[Dollars in millions]

Agency and subdivision	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Bureau of Engraving & Printing	.0	.0	.0	.0	.0	.0	-	-	-	-	-
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
United States Customs Service .	-	-	-	-	-	-	.1	.1	.0	.0	.0
Department of Veterans Affairs ..	2.6	15.0	2.2	10.3	2.1	2.2	11.8	5.9	4.1	5.1	4.4
Other Agencies											
Agency For International Dev 4/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.4	6.3
Atomic Energy Commission	265.9	312.2	246.7	349.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	N/A	N/A	-	-	-	1.9	.2	-	.3	2.7	2.7
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	392.7	392.6	438.8	N/A	N/A	N/A	N/A
Environmental Protection Agency .	2.0	1.1	.7	24.5	1.2	2.1	6.3	2.1	4.6	2.4	-
Federal Communications Comm	.0	.0	.0	-	-	-	-	-	-	-	-
General Services Admin	-	-	-	-	-	-	-	-	-	-	-
Nat'l Aeronautics & Space Admin .	33.4	40.2	45.2	69.3	98.4	142.7	82.1	118.1	162.3	147.5	159.1
National Science Foundation	23.3	27.9	18.6	57.1	11.7	23.1	52.6	27.1	39.7	30.2	18.7
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	3.8	3.0	9.6	7.1	6.9	8.6	7.7
Postal Service	N/A	.7	-	-	-	-	-	-	-	-	-
Smithsonian Institution	.1	-	-	.1	.4	.4	.5	.2	.2	1.0	.9
Tennessee Valley Authority	.0	.6	1.5	4.5	9.7	12.2	10.2	3.7	21.9	50.8	.6
US Arms Control & Disarmament Agency	-	-	-	-	-	-	-	-	-	-	-

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

2/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

4/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-148B. Federal obligations for R&D plant, by agency: fiscal years 1981-91

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	1,485.7	1,389.8	1,298.1	1,787.3	1,820.8	1,538.8	1,846.0	2,057.1	2,165.1	2,966.6	2,760.8
Department of Agriculture, total	20.8	21.5	33.9	39.2	40.6	79.4	111.8	135.2	89.2	123.6	76.2
Agricultural Research Svc 1/	17.6	21.1	23.4	28.8	29.0	69.2	43.9	55.5	55.2	62.7	70.7
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	-	-	.5	.3	6.1	4.0
Cooperative State Rsch Svc 2/	-	-	10.0	10.0	10.0	9.5	67.6	76.2	32.2	50.4	-
Forest Service	3.2	.4	.5	.4	1.6	.6	.3	2.9	1.6	4.4	1.5
Department of Commerce, total	1.3	1.0	.7	9.4	4.2	9.3	5.2	11.2	9.1	15.9	16.6
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Inst of Standards & Tech	.5	1.0	.7	9.4	4.2	7.7	2.0	10.7	8.6	10.1	13.0
Nat'l Oceanic & Atmospheric Administration	.8	-	-	-	-	1.5	3.2	.5	.5	5.8	3.6
Department of Defense, total	277.7	290.5	312.5	529.2	530.9	286.1	477.2	435.8	499.3	615.2	461.7
Department of the Army	12.8	24.7	26.3	56.2	52.9	53.9	65.8	92.8	45.1	58.9	45.1
Department of the Navy	97.9	155.9	141.7	173.4	182.1	97.6	69.0	74.9	89.6	104.7	91.6
Department of the Air Force	159.6	84.7	138.7	285.4	291.3	130.1	270.3	143.7	250.2	376.1	275.2
Defense agencies	7.4	25.2	5.8	14.2	4.6	4.5	72.1	124.4	114.4	75.6	49.8
Department of Education, total	-	-	-	-	1.1	6.6	21.0	5.2	1.9	9.3	1.8
Department of Energy	978.2	914.0	757.7	852.4	868.4	742.3	772.2	915.0	873.0	1,043.9	1,094.4
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Hlth & Human Svcs, total	23.7	24.7	47.9	31.1	42.1	37.9	36.7	19.5	78.6	130.2	97.6
Alcohol, Drug Abuse & Mental Health Administration	.2	3.3	1.8	.3	.4	.5	.6	-	-	-	-
Food & Drug Administration	1.2	2.0	28.5	3.0	13.0	8.0	.8	.5	23.0	.5	7.5
National Institutes of Health	22.3	19.4	17.5	27.8	28.8	29.4	35.3	19.0	55.6	129.7	90.1
Dept of the Interior, total	3.5	1.3	2.4	5.2	4.2	4.3	11.8	9.4	10.8	11.3	4.3
Bonneville Power Admin 3/	.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Mines	.6	.1	.1	.0	-	-	-	-	2.6	.5	.6
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	-	-	1.4	1.0	.8	.8	.8	.8	1.3	1.3	1.8
National Park Service	-	-	-	-	-	-	-	-	-	-	-
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	-	-
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	-	-	-	-	-	-	-
Office of Water Rsch & Tech	.8	.9	-	-	-	-	-	-	-	-	-
US Fish & Wildlife Service	1.8	.3	.9	4.2	3.4	3.5	11.0	8.6	6.9	9.5	1.9
Department of Justice, total	-	-	-	-	-	-	11.1	-	-	-	-
Fed Bureau of Investigation	-	-	-	-	-	-	11.1	-	-	-	-
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	-	-	-	-	-	-	-	-	-	-	-
Agency for Internat'l Dev 4/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	18.9	11.9	21.9	16.9	9.0	12.1	11.2	13.9	15.5	19.3	22.3
Coast Guard	-	-	-	-	-	-	-	.3	-	-	-
Federal Aviation Admin	8.9	5.1	21.4	16.4	8.5	10.9	10.4	13.2	15.5	18.6	20.8
Federal Highway Administration	.0	-	-	-	-	.7	.3	-	-	-	-
Federal Railroad Admin	9.5	6.3	-	-	-	-	-	.4	-	.8	1.5
Nat'l Highway Traffic Safety Administration	.5	.5	.5	.5	.5	.5	.5	-	-	-	-
Urban Mass Trans Admin	-	-	-	-	-	-	-	-	-	-	-

Continued on next page

Table C-1488. Federal obligations for R&D plant, by agency: fiscal years 1981-91--Continued

[Dollars in millions]

Agency and subdivision	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Bureau of Engraving & Printing	-	-	-	-	-	-	-	-	-	-	-
Office of Protective Research .	-	-	-	-	-	.1	.0	.0	.0	.0	.0
United States Customs Service .	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Department of Veterans Affairs ..	14.8	2.8	10.5	6.1	3.3	4.8	5.9	19.5	11.0	7.8	5.4
Other Agencies											
Agency For International Dev 4/..	8.0	6.0	4.8	7.8	6.9	7.5	6.8	6.1	-	-	-
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	-	-	-	-	-	-	-	-	-	-	-
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	-	-	-	-	-	-	-	-	-	-	-
Federal Communications Comm	-	-	-	-	-	-	-	-	-	-	-
General Services Admin	-	-	-	-	-	18.8	-	-	-	13.0	-
Nat'l Aeronautics & Space Admin .	115.8	113.7	101.3	244.2	234.3	275.0	309.4	428.2	519.5	852.5	822.4
National Science Foundation	14.6	1.5	3.2	45.2	73.6	53.2	61.3	56.9	53.6	119.4	154.0
Nuclear Regulatory Commission ...	7.7	-	-	-	-	-	-	-	-	-	-
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Smithsonian Institution	.4	.5	1.0	.2	1.6	.7	2.9	.7	3.4	4.8	4.0
Tennessee Valley Authority	.4	.3	.3	.2	.5	.8	.3	.4	.2	.3	.1
US Arms Control & Disarmament Agency	-	-	-	-	-	-	1.0	-	-	-	-

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

2/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

4/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-149. Federal obligations for research and development by character of work, and R&D plant: fiscal years 1970-91

[Dollars in millions]

Fiscal years	Total	Research		Development	R&D plant
		Basic	Applied		
1970	15,863.4	1,925.9	2,974.9	10,438.1	524.4
1971	16,153.8	1,980.1	3,143.0	10,419.3	611.2
1972	17,098.0	2,186.9	3,360.8	10,948.2	602.1
1973	17,574.5	2,232.0	3,349.4	11,218.7	774.3
1974	18,176.5	2,387.7	3,787.6	11,234.9	766.3
1975	19,859.5	2,588.4	4,141.3	12,309.1	820.7
1976	21,616.4	2,767.5	4,851.9	13,160.3	836.7
1977	24,817.6	3,258.6	5,255.5	14,936.3	1,367.2
1978	27,140.8	3,698.6	5,908.2	16,238.4	1,295.7
1979	29,620.6	4,192.7	6,342.3	17,610.1	1,475.5
1980	31,386.1	4,674.2	6,923.2	18,233.1	1,555.7
1981	34,589.6	5,041.3	7,171.5	20,891.1	1,485.7
1982	37,822.4	5,481.6	7,540.6	23,410.4	1,389.8
1983	40,009.6	6,260.1	7,993.4	24,458.0	1,298.1
1984	44,012.1	7,067.4	7,911.4	27,246.1	1,787.3
1985	50,180.4	7,818.7	8,314.7	32,226.1	1,820.8
1986	52,951.2	8,153.1	8,349.1	34,910.2	1,538.8
1987	57,099.0	8,942.4	8,997.9	37,312.7	1,846.0
1988	58,825.9	9,473.6	9,176.4	38,118.8	2,057.1
1989	63,570.9	10,602.0	10,163.3	40,640.4	2,165.1
1990 (Estimated)	65,286.7	11,347.6	10,335.2	40,637.3	2,966.6
1991 (Estimated)	68,868.1	12,254.6	10,965.2	42,887.6	2,760.8

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-150A. Federal obligations for research by selected agency: fiscal years 1970-80

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	4,900.8	5,123.2	5,547.7	5,581.4	6,175.2	6,729.7	7,619.3	8,514.1	9,606.8	10,535.0	11,597.4
Department of Agriculture, total	271.9	292.2	337.2	354.1	365.1	401.9	442.2	524.0	594.5	631.9	657.4
Agricultural Cooperative Svc 1/	.9	1.0	1.1	1.2	1.4	1.2	1.2	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/..	N/A	N/A	-	-	-	-	-	-	-	.4	1.0
Agricultural Research Svc 3/...	152.5	161.8	183.9	189.7	193.4	204.1	227.6	281.0	303.7	320.9	328.6
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/..	61.1	67.8	82.6	89.4	89.4	101.1	113.4	127.3	157.4	172.6	184.2
Econ, Stat & Coop Svc 5/.....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29.7	32.7	35.5	N/A
Economic Research Service	14.9	15.5	16.0	16.9	18.1	21.3	24.0	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.1
Federal Grain Inspection Svc ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	41.9	45.1	52.9	56.1	62.3	73.3	74.5	86.1	100.7	102.5	106.1
Human Nutrition Info Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library .	.2	.4	.2	.3	.1	.0	.0	-	-	-	-
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	4.9
Office of Transportation 2/....	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Nat'l Agricultural Stat svc ...	.5	.5	.5	.5	.4	1.0	1.6	N/A	N/A	N/A	N/A
Department of Commerce, total ...	94.1	113.7	143.4	130.2	129.2	144.4	155.7	176.1	192.8	219.5	254.4
Bureau of the Census	1.7	2.0	1.8	.5	.7	.7	2.1	2.0	2.3	1.8	1.9
Economic Development Admin	3.8	1.7	.8	.9	.9	1.1	2.1	2.5	5.9	8.5	2.5
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	4.9	13.2	20.7	5.9	5.8	5.7	5.0	3.7	7.0	12.2	12.1
Minority Business Dev Agency ..	3.5	-	-	-	.2	.9	.4	.7	-	-	-
Nat'l Inst of Standards & Tech	27.1	28.7	29.8	31.0	32.7	34.7	37.5	45.0	48.5	51.8	58.9
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	.7	3.2	4.5	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	52.9	65.6	90.2	89.1	87.1	99.7	104.9	115.8	127.9	142.7	168.8
Nat'l Telecomm & Info Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.0	1.1	2.4	9.6
Office of Telecommunications ..	-	2.1	-	2.3	1.6	.6	.4	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	.1	.5
Patent and Trademark Office ...	.3	.4	-	-	.2	.3	.2	-	-	-	-
US Travel & Tourism Admin	-	-	-	.4	-	-	-	-	-	-	-
Department of Defense, total	1,329.9	1,309.3	1,504.6	1,436.1	1,434.4	1,431.0	1,527.5	1,715.8	1,824.1	2,014.1	2,261.8
Department of the Army	322.1	309.9	371.5	377.1	366.5	336.4	362.4	398.0	409.8	448.6	479.3
Department of the Navy	356.0	353.9	406.4	386.3	401.3	406.5	438.0	497.4	526.3	567.3	611.1
Department of the Air Force ...	324.5	321.9	342.3	341.0	341.7	355.8	382.3	425.8	448.7	492.3	537.3
Defense agencies	323.2	320.5	380.4	328.5	322.2	330.6	344.1	393.4	431.7	505.9	634.1
Defense Civil Preparedness Agency	4.1	3.0	4.0	3.2	2.7	1.7	.7	1.3	7.5	N/A	N/A
Department of Education, total ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	93.4	87.6
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	891.3	1,102.2	1,131.8	1,277.3
Dept of Hlth, Education, & Welfare, total	1,040.9	1,231.9	1,432.0	1,444.2	1,846.7	1,924.8	2,150.7	2,414.3	2,740.7	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	122.2	155.6	139.4	136.6	152.0	178.8	N/A	N/A
Centers for Disease Control ...	N/A	N/A	N/A	38.3	44.9	42.6	49.6	55.3	60.1	N/A	N/A
Environmental Health Service ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	21.8	25.6	30.4	30.2	43.5	35.9	37.1	42.9	64.1	N/A	N/A
Health Care Financing Admin ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.0	19.4	N/A	N/A
Health Resources Admin	N/A	N/A	-	11.0	9.7	16.7	31.0	7.4	5.0	N/A	N/A
Health Services Administration	N/A	N/A	N/A	10.1	9.4	10.6	9.5	9.5	10.6	N/A	N/A
Hlth Svcs & Mental Hlth Admin .	160.4	179.2	200.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education ..	N/A	N/A	-	16.1	9.5	4.1	10.8	27.1	34.6	N/A	N/A
National Institutes of Health .	780.4	913.5	1,099.4	1,132.1	1,489.6	1,604.2	1,767.7	1,968.7	2,232.6	N/A	N/A
Off of Asst't Secy for Educ ...	-	-	-	-	-	.6	1.0	1.0	1.3	N/A	N/A
Off of Asst't Secy for Hlth ...	-	-	-	-	-	-	-	28.6	32.6	N/A	N/A
Office of Child Development ...	1.0	7.9	12.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	33.1	62.8	36.0	6.6	6.4	5.3	21.4	11.9	13.3	N/A	N/A
Off of Human Development Svcs .	-	-	-	10.1	17.2	7.1	34.6	48.7	45.2	N/A	N/A
Office of International Health	-	-	-	.7	2.7	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	-	-	-	29.8	26.2	23.7	20.0	30.2	N/A	N/A
Social & Rehabilitation Svc ...	31.9	32.1	39.9	48.3	8.9	9.6	18.6	N/A	N/A	N/A	N/A
Social Security Administration	12.4	10.9	13.6	18.5	19.4	22.6	9.1	11.2	12.9	N/A	N/A

Continued on next page

Table C-150A. Federal obligations for research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3,015.7	3,332.8
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	213.5	233.5
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	76.3	87.3
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	61.0	75.4
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.8	45.7
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.9	5.1
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10.2	8.0
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.9	19.1
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,530.1	2,787.5
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	29.9	25.7
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.7	24.0
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.3	21.4
Dept of Housing & Urban Dev	7.1	10.5	12.7	18.4	33.8	33.5	36.9	32.7	30.5	23.8	19.6
Dept of the Interior, total	120.6	136.9	147.3	160.2	143.5	234.1	259.5	255.9	283.5	339.5	354.4
Bonneville Power Admin 7/	.5	.3	.3	.3	.4	.5	.5	N/A	N/A	N/A	N/A
Bureau of Land Management	.7	.8	.8	.7	.6	.7	.7	.8	1.0	1.1	1.3
Bureau of Mines	33.9	38.7	40.7	41.5	30.5	52.9	73.3	52.3	57.0	79.1	82.8
Bureau of Reclamation	7.2	9.1	9.9	9.4	6.9	7.3	7.9	9.3	10.6	11.4	12.9
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	39.9	41.9	51.5	62.9	66.2	106.6	110.3	117.5	133.7	145.1	145.8
Heritage Conservation & Recreation Svc	.1	.2	.0	.0	.0	.0	.0	.0	-	-	-
Mineral Management Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Park Service	-	1.1	1.3	1.5	2.5	8.4	9.3	7.5	7.7	8.9	8.2
Office of Coal Research	2.3	5.0	4.2	5.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.2	.3	4.1	.4	1.3	1.0	4.5	1.7	1.4	2.2
Off of Surface Mining Reclamation & Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.2	5.0	7.5
Office of Water Rsch & Tech	17.9	18.5	18.7	13.3	15.0	15.4	14.0	12.3	15.4	17.8	18.4
US Fish & Wildlife Service	18.0	21.0	19.5	20.8	21.0	40.9	42.5	51.7	54.2	69.6	75.2
Department of Justice, total	5.3	6.5	12.4	7.0	18.6	18.9	18.3	17.6	45.7	28.8	28.8
Drug Enforcement Admin	.8	1.5	1.2	1.6	1.7	.9	.5	.9	.5	.7	.8
Federal Prison System	-	-	-	-	-	-	-	.1	.7	.5	.9
Immigration & Naturalization Svc	-	-	-	-	-	.0	.1	.1	.2	.1	.2
Office of Justice Programs	4.5	5.0	11.2	5.5	16.9	17.9	17.7	16.4	43.3	25.9	25.6
Office of Legal Policy	-	-	-	-	-	-	-	-	1.1	1.6	1.3
Department of Labor, total	11.3	13.6	13.3	13.3	17.2	15.3	18.0	18.7	25.7	42.1	36.4
Bureau of Labor Statistics	2.6	2.9	2.5	.8	.6	.7	.8	.9	.8	.9	.9
Employment Standards Admin	2.2	1.5	1.6	1.3	.9	3.2	4.3	4.4	3.7	5.3	4.9
Employment & Training Admin	6.2	8.2	8.3	8.8	11.7	7.1	7.5	6.4	14.9	25.9	20.1
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Labor-Management Svcs Admin 8/	.3	.5	.7	.9	1.2	.8	.7	3.3	2.8	3.2	2.8
Occupational Safety & Hlth Administration	N/A	.3	-	.4	.5	1.4	2.9	3.4	1.3	5.1	6.3
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	.2	.2	1.2	2.3	2.0	1.8	.2	2.2	1.6	1.4
Pension Benefit Guarantee Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Post Office Department	4.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	18.9	29.0	25.7	24.6	17.8	22.5	25.1	38.3	49.1	2.7	2.0
Agency for Internat'l Dev 9/	18.6	28.6	25.2	23.9	16.8	21.7	24.0	36.2	46.6	N/A	N/A
Departmental funds	.1	.4	.6	.8	1.1	.7	1.1	2.1	2.5	2.7	2.0
Peace Corps	.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	83.3	97.0	98.2	77.2	61.8	53.8	31.1	51.8	66.5	67.0	82.4
Coast Guard	4.0	4.7	5.1	5.3	6.7	4.3	2.6	2.5	2.3	10.9	8.1
Federal Aviation Admin	10.0	17.3	22.2	17.8	13.9	14.1	3.6	4.7	6.8	7.5	8.2
Federal Highway Administration	28.6	23.9	20.3	1.8	3.3	3.4	1.9	5.3	4.9	4.4	4.6
Federal Railroad Admin	9.6	18.0	9.3	15.4	1.6	2.7	8.6	6.6	9.2	7.5	7.9
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Highway Traffic Safety Administration	15.9	14.7	20.7	21.7	14.9	12.0	9.9	27.5	38.0	30.0	38.6
Office of the Secretary	9.0	8.7	12.8	9.0	15.2	14.4	3.9	4.2	4.1	.6	.6
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.1	5.0	5.5
Urban Mass Trans Admin	6.2	9.7	7.8	6.3	6.2	2.9	.6	1.0	1.1	1.1	8.9

Continued on next page

Table C-150A. Federal obligations for research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.3	0.4	0.5	0.4	0.5	0.4	1.5	2.1	4.1	4.7	5.7
Bureau of Alcohol, Tobacco, & Firearms	N/A	N/A	-	-	-	-	-	.4	.4	.7	.3
Bureau of Engraving & Printing	.3	.4	.5	.4	.5	.4	1.5	1.7	1.9	.6	1.3
Internal Revenue Service	-	-	-	-	-	-	-	-	1.8	3.5	3.9
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
United States Customs Service .	-	-	-	-	-	-	-	-	-	-	.1
Department of Veterans Affairs ..	57.8	62.1	67.1	69.7	78.7	87.1	85.1	92.3	99.4	111.4	117.9
Other Agencies											
Action	N/A	.1	-	-	.1	.2	.1	.1	.2	-	-
Advisory Comm on Intergov't Relations	.6	.5	.7	.9	1.1	1.2	1.0	1.5	1.7	1.7	2.2
Agency for International Dev 9/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	66.9	79.7
Appalachian Regional Commission .	-	3.0	-	-	-	-	.7	.6	.3	.7	.6
Atomic Energy Commission	433.1	429.0	417.1	424.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.3	.4	.4	.5	1.3	1.5	1.1	1.1	N/A	N/A	N/A
Community Services Admin	N/A	N/A	N/A	N/A	.5	.2	-	1.0	2.0	1.8	1.3
Consumer Product Safety Comm	N/A	N/A	-	.3	2.6	3.0	3.5	3.7	.9	1.8	1.6
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	464.7	593.4	746.5	N/A	N/A	N/A	N/A
Environmental Protection Agency .	53.0	53.8	51.1	74.3	96.3	141.7	155.4	205.3	252.7	259.0	245.1
Federal Communications Comm	1.0	.6	.7	1.1	.9	1.1	1.5	2.0	2.4	2.9	3.4
Fed Emergency Management Agency .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.8	9.7	9.3
Federal Energy Administration ...	N/A	N/A	N/A	N/A	-	.2	1.0	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	.4	.4	.5	.5	.7	.7	.8	1.7	1.0	.9	1.2
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Trade Commission	.4	.4	.6	.7	.9	.9	.9	1.1	1.4	1.5	3.0
General Services Admin	.2	.1	.1	.3	1.4	.9	.4	.4	2.2	.2	.1
International Trade Commission ..	-	-	-	-	-	-	1.5	2.6	3.1	3.4	2.1
Interstate Commerce Commission ..	-	-	-	-	-	-	.1	.1	.3	.2	.1
Library of Congress	1.0	1.0	1.2	1.4	.4	.4	.4	.4	.5	.6	.6
Nat'l Aeronautics & Space Admin .	1,030.2	922.7	764.6	793.9	845.7	935.1	1,222.8	1,206.1	1,345.2	1,451.2	1,609.6
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	274.8	318.3	427.3	464.0	520.3	570.0	595.8	688.3	743.5	800.0	873.7
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	42.3	64.2	88.4	112.3	133.9	148.8	182.7
Office of Economic Opportunity ..	29.4	63.1	55.3	32.3	-	-	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	1.0	.6	.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.0	1.4	2.6
Office of Science and Technology	.9	1.0	1.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	.2	1.2	.6	.3	2.5	1.9	-	-	N/A	N/A
Postal Service	N/A	1.0	-	-	-	-	-	-	-	-	-
Small Business Administration ...	.1	-	-	-	-	.2	.1	.5	-	-	-
Smithsonian Institution	18.2	15.1	21.3	24.0	24.7	24.8	25.7	29.7	34.9	36.9	41.0
Spec Action Off for Drug Abuse Prevention	N/A	N/A	-	12.0	11.1	3.8	-	N/A	N/A	N/A	N/A
Tennessee Valley Authority	6.4	7.5	8.3	12.5	11.6	14.7	16.5	22.9	13.5	16.5	15.8
US Arms Control & Disarmament Agency	3.7	1.4	1.5	1.7	1.1	1.0	1.4	1.8	2.5	2.7	3.0
US Information Agency 11/.....	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service For fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to Agricultural Marketing Service. Data reported for the Agricultural Marketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-150B. Federal obligations for research by selected agency: fiscal years 1981-91

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	12,212.8	13,022.2	14,253.5	14,978.8	16,133.4	16,502.2	17,940.4	18,650.0	20,765.3	21,682.8	23,219.7
Department of Agriculture, total	741.0	766.5	817.6	834.9	910.9	896.4	918.9	985.2	1,002.2	1,065.3	1,116.9
Agricultural Cooperative Svc 1/	1.7	1.7	2.1	2.2	2.9	2.6	2.7	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/	.9	1.0	1.1	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.4
Agricultural Research Svc 3/	367.9	379.1	417.9	424.3	442.0	436.0	454.6	479.4	492.1	514.1	552.5
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	5.6	7.4	7.8	8.3
Cooperative State Rsch Svc 4/	199.4	219.0	232.3	235.7	284.3	269.0	270.7	298.4	307.3	324.9	335.4
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Service	39.3	39.3	38.6	43.7	46.4	44.6	44.8	48.1	49.5	51.0	56.3
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	.8	.6	.7	.6	.8	.8	.7
Forest Service	119.9	107.7	103.9	105.1	109.8	109.7	122.9	131.5	127.5	148.3	144.2
Human Nutrition Info Service	-	8.5	8.2	6.0	6.7	12.8	6.8	8.2	8.4	9.0	10.7
National Agricultural Library	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Dev	3.6	2.4	4.8	7.5	7.3	6.6	5.3	4.8	2.3	2.2	1.4
Office of Transportation 2/	.8	.8	.8	.9	1.1	.9	.9	.9	-	-	-
Nat'l Agricultural Stat svc	7.5	7.0	7.6	8.2	8.4	8.0	3.4	3.6	2.9	3.1	3.2
Department of Commerce, total	249.4	276.1	284.8	296.7	324.2	339.5	338.6	342.3	351.0	367.5	362.1
Bureau of the Census	3.0	1.9	2.2	2.4	2.5	2.6	2.8	3.8	3.0	2.9	2.9
Economic Development Admin	1.8	1.6	5.3	5.1	2.0	2.3	5.0	4.2	1.0	1.2	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minority Business Dev Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	66.2	73.9	81.5	83.7	86.5	89.1	89.4	98.9	105.6	116.2	123.1
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	168.5	188.5	188.9	197.7	224.4	237.5	234.4	228.2	234.6	240.2	228.8
Nat'l Telecomm & Info Admin	9.9	10.1	6.9	7.7	7.9	7.6	7.0	7.3	6.9	7.0	7.4
Office of Telecommunications	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.0	.0	.0	.9	.3	.0	-	-	-	-
Patent and Trademark Office	-	-	-	-	-	-	-	-	-	-	-
US Travel & Tourism Admin	-	-	-	-	-	-	-	-	-	-	-
Department of Defense, total	2,600.9	2,952.8	3,222.6	3,048.5	3,168.3	3,227.3	3,347.6	3,239.1	3,656.1	3,234.9	3,469.5
Department of the Army	536.5	639.2	693.6	708.8	823.4	827.3	909.9	753.7	823.4	719.1	794.9
Department of the Navy	698.0	778.7	827.0	765.4	791.3	784.3	786.7	747.8	783.2	778.7	863.5
Department of the Air Force	617.3	633.9	688.4	740.1	736.7	759.0	784.8	773.1	807.4	706.6	781.6
Defense agencies	749.1	901.0	1,013.6	834.3	816.9	856.7	866.1	964.5	1,242.1	1,030.5	1,029.5
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total	53.8	70.5	76.1	80.9	91.9	95.8	106.9	111.0	122.0	133.2	154.5
Department of Energy	1,413.6	1,696.1	1,961.1	2,024.9	2,141.0	2,040.3	2,097.9	2,235.4	2,431.7	2,640.2	2,741.3
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Educ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Child Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Human Development Svcs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of International Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social & Rehabilitation Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Continued on next page

Table C-150B. Federal obligations for research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	3,492.2	3,605.6	4,020.8	4,466.0	5,028.3	5,189.6	6,021.9	6,497.0	7,088.4	7,577.0	7,977.1
Alcohol, Drug Abuse & Mental Health Administration	237.7	246.1	300.4	336.0	376.4	394.9	473.3	552.4	692.6	816.2	914.9
Centers for Disease Control	74.8	75.0	78.2	46.3	47.6	52.2	66.2	88.7	117.8	125.9	130.8
Food & Drug Administration	71.4	73.0	74.2	77.8	82.1	79.4	85.0	91.0	99.0	110.0	125.5
Health Care Financing Admin	38.6	29.1	30.2	33.1	33.5	29.0	27.3	28.2	49.1	50.0	36.0
Health Resources Admin	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources & Svc's Admin	N/A	6.7	11.0	16.2	18.2	12.3	9.3	10.0	10.5	10.5	10.5
Health Services Administration	10.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	39.9	8.7	6.9	4.5	5.8	6.8	9.4	7.1	8.5	11.4	11.9
National Institutes of Health	2,948.3	3,124.5	3,478.2	3,910.4	4,428.1	4,587.6	5,314.7	5,680.7	6,061.8	6,374.3	6,679.9
Off of Asst't Secy for Hlth	28.8	13.9	16.6	18.1	16.9	15.8	18.9	19.4	25.6	55.8	46.1
Office of the Secretary	19.5	13.1	14.4	10.0	9.4	6.1	8.2	4.7	7.8	5.0	5.0
Social Security Administration	18.0	15.5	10.8	13.5	10.4	5.6	9.8	14.7	15.8	18.0	16.6
Dept of Housing & Urban Dev	16.7	10.3	11.3	6.3	6.5	5.3	5.5	6.3	6.1	7.5	17.7
Dept of the Interior, total	369.8	351.5	357.7	380.2	369.3	367.9	382.1	392.5	441.9	470.5	452.2
Bonneville Power Admin 7/	6.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Land Management	1.5	2.4	2.0	1.8	2.8	2.1	2.1	2.2	2.0	2.1	4.3
Bureau of Mines	68.0	81.1	79.4	97.2	86.5	81.6	85.2	86.2	93.2	95.0	70.8
Bureau of Reclamation	13.4	9.0	8.8	9.0	11.2	9.7	10.2	3.7	3.5	4.2	6.1
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	169.3	152.1	154.7	204.0	210.5	211.2	216.5	225.3	266.9	285.2	287.4
Heritage Conservation & Recreation Svc	-	-	-	-	-	-	-	-	-	-	-
Mineral Management Service	N/A	-	1.5	1.5	1.4	1.1	1.0	1.2	2.2	2.0	2.5
National Park Service	10.4	11.2	13.7	14.0	15.0	17.3	18.5	19.4	19.4	19.5	22.8
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	1.5	.5	7.4	.1	1.9	1.0	-	.1	-	-	-
Off of Surface Mining Reclamation & Enforcement	5.8	1.5	1.5	.8	2.0	2.3	1.0	1.0	.7	.8	.8
Office of Water Rsch & Tech	15.8	10.1	1.2	3.6	-	-	-	-	-	-	-
US Fish & Wildlife Service	77.8	83.6	87.5	48.3	37.9	41.7	47.6	53.5	53.9	61.8	57.5
Department of Justice, total	19.5	16.3	20.7	17.9	19.3	22.3	19.8	17.4	17.5	21.1	18.3
Drug Enforcement Admin	.4	1.3	.9	.7	.5	.8	.7	.6	.5	.5	.5
Federal Prison System	1.7	.9	1.3	1.2	1.1	2.7	2.2	2.1	2.1	1.8	1.8
Immigration & Naturalization Svc	.1	.3	.3	.3	.2	.2	.2	.3	.1	.4	.4
Office of Justice Programs	16.7	13.4	18.0	15.7	17.2	18.5	16.7	14.4	14.8	18.4	15.6
Office of Legal Policy	.7	.4	.2	-	.3	.2	.1	-	-	-	-
Department of Labor, total	58.2	17.2	17.9	16.3	12.4	9.5	20.4	26.7	22.2	22.3	26.6
Bureau of Labor Statistics	.3	.3	.7	.5	.6	.6	6.5	7.0	7.0	7.1	7.2
Employment Standards Admin	3.2	1.4	1.4	.9	.0	-	1.0	.1	.1	.3	.2
Employment & Training Admin	48.8	8.7	7.9	6.1	3.5	3.5	5.4	6.8	6.1	5.8	6.7
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	.3	.3	.2	.3	.4	.3	.1	.1
Labor-Management Svcs Admin 8/	1.8	.7	.9	-	-	-	-	-	-	-	-
Occupational Safety & Hlth Administration	3.0	4.9	5.3	5.1	4.5	3.6	4.1	4.2	4.5	4.1	4.1
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	1.2	1.6	.3	1.0	2.7	1.4	2.4	2.6
Office of the Secretary	1.1	.9	1.5	1.9	1.7	1.3	1.8	5.2	2.5	2.2	5.4
Pension Benefit Guarantee Corporation	.1	.3	.3	.3	.2	.1	.3	.3	.3	.3	.3
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	1.6	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Agency for Internat'l Dev 9/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Departmental funds	1.6	1.5	1.5	1.6	1.5	1.5	3.0	4.2	4.7	4.5	4.5
Peace Corps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	88.6	66.7	72.6	77.7	71.2	68.2	68.6	91.0	120.3	121.2	129.2
Coast Guard	15.0	1.7	1.2	7.2	5.4	3.5	3.7	5.4	4.6	5.6	6.1
Federal Aviation Admin	8.2	7.0	12.5	15.0	17.3	14.0	11.1	13.3	23.6	28.7	31.6
Federal Highway Administration	5.1	5.3	7.3	6.1	6.3	14.7	20.5	43.5	56.4	50.7	51.5
Federal Railroad Admin	6.2	3.1	2.8	12.3	11.4	12.5	10.4	8.2	7.5	10.0	12.4
Maritime Administration	9.5	6.6	6.2	8.6	8.0	6.8	3.3	.5	-	-	-
Nat'l Highway Traffic Safety Administration	29.4	21.3	21.4	24.7	20.9	16.1	18.9	19.1	26.2	23.9	25.4
Office of the Secretary	.7	.3	.3	.9	.9	.4	.4	.7	1.3	1.8	1.6
Rsch & Special Programs Admin	5.2	2.1	2.6	1.8	.5	.3	.2	.4	.7	.6	.6
Urban Mass Trans Admin	9.3	19.4	18.3	1.0	.5	-	-	-	-	-	-

Continued on next page

Table C-1508. Federal obligations for research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	5.2	8.1	10.2	10.6	18.3	17.7	17.4	15.9	16.3	19.0	18.8
Bureau of Alcohol, Tobacco, & Firearms	.1	-	-	-	-	-	-	-	-	-	-
Bureau of Engraving & Printing	.9	2.8	2.0	2.2	3.4	3.1	2.8	1.2	1.4	1.6	1.2
Internal Revenue Service	4.2	5.3	7.9	8.1	14.7	14.0	14.1	13.7	14.1	16.5	16.5
Office of Protective Research .	-	-	.3	.1	.2	.4	.2	.4	.4	.5	.5
United States Customs Service .	.1	.0	-	.1	.1	.2	.2	.7	.4	.4	.7
Department of Veterans Affairs ..	127.7	123.0	146.1	171.9	209.1	169.9	190.3	196.1	213.7	217.2	190.3
Other Agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Advisory Comm on Intergov't Relations	2.2	2.0	2.1	2.1	2.4	2.1	1.9	1.8	1.1	1.4	1.4
Agency for International Dev 9/..	86.4	127.9	156.7	167.0	159.8	184.9	154.0	135.1	219.1	167.0	165.8
Appalachian Regional Commission .	.3	.3	.2	.4	.2	.2	.1	.2	.8	1.0	1.0
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Community Services Admin	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	.2	.1	.3	1.1	1.4	1.1	.6	.1	.5	.2	.4
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	218.3	243.4	174.6	172.0	214.6	217.8	277.2	267.9	273.3	316.1	362.7
Federal Communications Comm	1.8	1.2	1.3	.9	1.2	.9	1.0	1.2	1.1	2.0	1.3
Fed Emergency Management Agency .	9.1	9.2	3.3	6.1	2.9	N/A	N/A	N/A	N/A	N/A	N/A
Federal Energy Administration ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	1.0	2.7	3.0	2.6	2.8	3.3	3.4	3.4	N/A	N/A	N/A
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.1	5.8	6.4
Federal Trade Commission	1.1	1.2	1.4	1.6	1.7	1.8	.5	.4	.4	.5	.5
General Services Admin	.4	.5	.2	.4	.4	.9	1.6	2.3	.5	.8	.1
International Trade Commission ..	3.4	3.8	4.7	5.0	5.8	6.9	7.2	8.1	8.7	9.6	10.5
Interstate Commerce Commission ..	-	-	-	-	-	-	-	-	-	-	-
Library of Congress	.9	.9	1.3	2.1	2.1	1.6	1.5	1.6	1.6	1.5	3.1
Nat'l Aeronautics & Space Admin .	1,407.2	1,407.1	1,544.8	1,709.2	1,783.6	2,069.0	2,269.2	2,331.6	2,878.8	3,295.2	3,773.1
National Archives	N/A	N/A	N/A	N/A	.2	-	.7	.5	.2	.2	.6
National Science Foundation	955.5	973.2	1,062.0	1,202.8	1,345.6	1,353.3	1,470.5	1,532.8	1,670.4	1,765.8	1,983.4
Nuclear Regulatory Commission ...	219.7	220.3	207.3	190.7	150.0	123.8	122.5	108.5	114.8	109.3	116.2
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	3.4	-	-	-	-	-	-	-	-	-	-
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Small Business Administration ...	-	-	-	-	-	-	-	-	-	-	-
Smithsonian Institution	44.9	52.4	56.0	63.6	71.1	63.3	71.5	75.1	80.2	87.5	100.1
Spec Action Off for Drug Abuse Prevention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee Valley Authority	14.2	12.7	12.3	14.3	14.4	17.8	17.7	18.5	14.6	16.8	11.8
US Arms Control & Disarmament Agency	1.6	1.3	.8	1.2	1.1	.9	.4	.8	1.2	.6	2.0
US Information Agency 11/.....	1.1	-	.0	1.4	.1	1.6	-	.1	-	.3	.4

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service For fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to Agricultural Marketing Service. Data reported for the Agricultural Marketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-151A. Federal obligations for basic research by selected agency: fiscal years 1970-80

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	1,925.9	1,980.1	2,186.9	2,232.0	2,387.7	2,588.4	2,767.5	3,258.6	3,698.6	4,192.7	4,674.2
Department of Agriculture, total	115.7	118.4	137.3	142.7	145.6	154.2	171.4	204.5	242.7	256.4	275.7
Agricultural Cooperative Svc 1/	.2	.2	-	-	-	-	-	N/A	N/A	N/A	-
Agricultural Research Svc 2/	73.3	72.1	82.9	84.6	85.5	38.4	43.1	125.6	142.4	148.2	157.8
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 3/	23.2	25.8	31.4	34.0	34.0	38.4	43.1	48.4	65.6	70.5	75.2
Econ, Stat & Coop Svc 4/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.8	3.9	6.4	N/A
Economic Research Service	4.3	4.7	4.6	4.8	5.4	3.2	3.6	N/A	N/A	N/A	N/A
Economics & Statistics Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6.6
Forest Service	14.5	15.7	18.3	19.3	20.7	21.1	22.6	26.7	30.8	31.4	33.7
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.3
Office of Transportation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Nat'l Agricultural Stat svc	.1	.1	.1	.1	.0	.3	.4	N/A	N/A	N/A	N/A
Department of Commerce, total	18.2	15.7	7.9	6.6	7.7	8.1	11.0	12.3	11.8	11.9	15.9
Bureau of the Census	.3	.3	.3	.2	.2	.2	.2	.2	.5	.6	.5
Economic Development Admin	-	-	-	-	-	-	1.7	1.0	2.7	.5	.3
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	-	.4	2.7	1.8	1.2	1.7	1.2	1.2	2.7	2.0	2.0
Minority Business Dev Agency	3.5	-	-	-	-	-	-	.2	-	-	-
Nat'l Inst of Standards & Tech	14.4	14.5	4.9	4.5	6.2	5.4	5.8	6.9	5.9	8.8	12.8
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	.7	2.1	2.7	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	-	-	-	-	-	-	-	-	-	-	-
Nat'l Telecomm & Info Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.1	-	-	-
Office of Telecommunications	-	.5	-	.2	.2	.1	.1	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	-	.3
Department of Defense, total	317.0	322.1	328.8	306.7	302.9	300.1	326.9	373.3	410.4	471.5	540.3
Department of the Army	76.3	78.5	82.5	76.9	76.3	71.7	81.4	99.0	104.1	115.0	132.2
Department of the Navy	117.8	114.6	124.6	112.7	114.2	118.7	129.7	153.8	172.1	192.1	214.9
Department of the Air Force	84.6	84.5	86.4	79.9	77.5	78.9	83.9	84.8	95.1	105.0	108.2
Defense agencies	38.3	44.5	35.4	37.2	34.9	30.7	31.9	35.6	39.1	59.3	85.1
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.6	17.6
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	389.5	440.5	463.0	523.1
Dept of Hlth, Education, & Welfare, total	513.0	574.5	665.4	667.3	850.1	903.7	986.2	1,119.5	1,292.3	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	52.6	53.3	66.2	52.6	62.7	79.9	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	-	7.4	7.4	-	3.1	-	-	N/A	N/A
Health Services Administration	N/A	N/A	N/A	1.5	.6	1.2	.3	2.0	.6	N/A	N/A
Hlth Svcs & Mental Hlth Admin	60.3	63.6	75.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	-	11.4	4.8	1.9	5.1	11.9	18.3	N/A	N/A
National Institutes of Health	444.4	503.7	585.7	593.0	775.3	828.5	920.3	1,032.8	1,181.1	N/A	N/A
Off of Asst't Secy for Hlth	-	-	-	-	-	-	-	4.0	5.1	N/A	N/A
Office of Education	7.8	6.8	3.7	.1	.2	-	-	-	-	N/A	N/A
Off of Human Development Svcs	-	-	-	-	-	-	-	2.2	2.2	N/A	N/A
Office of International Health	-	-	-	.7	2.7	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	-	-	-	4.2	4.1	4.9	4.0	5.1	N/A	N/A
Social Security Administration	.4	.4	.6	.8	1.6	1.8	-	-	-	N/A	N/A

Continued on next page

Table C-151A. Federal obligations for basic research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,576.0	1,762.7
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	94.6	104.7
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.0	2.0
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,463.7	1,642.3
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13.6	11.6
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.1	2.0
Dept of the Interior, total	39.5	41.7	43.1	48.7	48.7	54.9	54.3	63.6	65.9	72.5	71.6
Bonneville Power Admin 6/	-	-	-	-	-	-	-	N/A	N/A	N/A	N/A
Bureau of Land Management	.0	-	-	-	-	-	-	-	-	-	-
Bureau of Mines	6.2	6.5	7.8	6.9	5.6	1.9	.8	4.0	8.6	13.7	11.5
Bureau of Reclamation	.1	.1	.1	.1	.1	.0	.1	.1	.2	.1	.2
Geological Survey	20.2	20.6	21.5	27.7	27.2	38.6	39.5	40.3	46.3	49.0	47.3
National Park Service	-	.7	.9	.8	1.0	.6	.6	-	-	-	-
Office of Coal Research	-	-	-	.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	.7	-	-	1.0	3.2	1.7	1.4	2.2
Office of Water Rsch & Tech	4.5	4.7	4.2	3.2	3.7	3.9	3.6	2.9	4.6	4.6	6.6
US Fish & Wildlife Service	8.5	9.1	8.6	9.3	11.0	9.9	8.8	13.1	4.5	3.7	3.8
Department of Justice, total	-	-	-	2.1	2.1	9.5	4.5	5.1	14.7	7.9	9.5
Federal Prison System	-	-	-	-	-	-	-	-	-	-	-
Office of Justice Programs	-	-	-	2.1	2.1	9.5	4.5	5.1	14.7	7.9	9.5
Department of Labor, total	2.1	2.5	1.1	1.3	1.2	.9	1.0	.7	3.7	2.3	3.9
Bureau of Labor Statistics	1.4	1.4	-	-	-	-	-	-	-	-	-
Employment & Training Admin	.3	.6	.4	.4	.6	.5	.6	.6	3.5	1.8	3.9
Labor-Management Svcs Admin	.3	.5	.7	.9	.6	.3	.3	.1	.2	.5	-
Department of State, total	-	-	-	-	-	1.5	-	-	-	.0	-
Agency for Internat'l Dev 7/	-	-	-	-	-	1.5	-	-	-	N/A	N/A
Departmental funds	-	-	-	-	-	-	-	-	-	.0	-
Dept of Transportation, total	.4	.3	.5	.2	.3	.1	-	-	-	-	-
Coast Guard	.0	.0	.0	.1	.2	.1	-	-	-	-	-
Federal Highway Administration	.3	.1	.2	-	-	-	-	-	-	-	-
Federal Railroad Admin	-	.0	-	-	-	-	-	-	-	-	-
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.2	.4	.0	.1	-	-	-	-	-	-
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-	-	-

Continued on next page

Table C-151A. Federal obligations for basic research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	-	-	-	-	-	-	-	-	-	0.2	1.7
Bureau of Engraving & Printing	-	-	-	-	-	-	-	-	-	-	-
Internal Revenue Service	-	-	-	-	-	-	-	-	-	.2	1.7
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Department of Veterans Affairs ..	5.3	3.1	3.2	3.2	3.6	3.9	8.9	9.1	8.9	9.5	14.3
Other agencies											
Action	N/A	-	-	-	.1	.1	.0	.1	-	-	-
Agency for International Dev 7/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Atomic Energy Commission	286.7	276.9	268.3	275.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.1	.1	.1	.2	.2	.6	.3	.4	N/A	N/A	N/A
Consumer Product Safety Comm	N/A	N/A	-	-	-	-	-	-	-	-	-
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	269.5	312.8	345.8	N/A	N/A	N/A	N/A
Environmental Protection Agency .	5.5	6.1	6.1	9.0	9.5	17.4	13.7	8.3	6.0	10.1	13.6
Fed Emergency Management Agency .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.8	3.0	2.6
Federal Trade Commission	-	-	-	-	-	-	.3	.4	.5	.4	1.5
General Services Administration .	-	-	-	.0	.5	.3	.1	.1	1.8	.0	-
Library of Congress	-	-	-	-	-	-	.2	.1	.1	.1	.1
Nat'l Aeronautics & Space Admin .	357.5	327.3	331.6	350.3	305.9	309.3	293.2	413.8	479.7	512.8	559.1
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	245.0	272.6	367.7	392.4	415.2	486.0	523.6	624.9	678.0	733.3	815.2
Office of Economic Opportunity ..	1.6	3.2	4.2	.9	-	-	N/A	N/A	N/A	N/A	N/A
Office of Science and Technology	.4	.4	.4	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	-	-	-	-	.4	.4	-	-	N/A	N/A
Smithsonian Institution	18.2	15.1	21.3	24.0	24.7	24.8	25.7	29.7	34.9	36.9	41.0
Spec Action Off for Drug Abuse Prevention	N/A	N/A	-	1.0	-	-	-	N/A	N/A	N/A	N/A
Tennessee Valley Authority	-	-	-	-	-	-	-	3.5	3.8	4.1	4.6
US Information Agency 8/.....	-	-	-	-	-	-	-	-	-	-	-

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-79.

2/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

5/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

6/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

8/ Includes the Former International Communication Agency for fisc al years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-151B. Federal obligations for basic research by selected agency: fiscal years 1981-91

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	5,041.3	5,481.6	6,260.1	7,067.4	7,818.7	8,153.1	8,942.4	9,473.6	10,602.0	11,347.6	12,254.6
Department of Agriculture, total	314.1	330.8	362.0	392.6	445.4	432.9	445.5	480.6	484.9	513.1	546.8
Agricultural Cooperative Svc 1/	-	-	-	-	-	-	-	-	-	-	-
Agricultural Research Svc 2/	186.4	192.9	215.3	240.6	250.2	247.7	253.4	271.1	282.7	295.3	317.4
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	-	-	-	-	-	-
Cooperative State Rsch Svc 3/	83.9	91.3	98.8	99.6	141.5	131.7	132.8	145.8	142.6	149.9	162.9
Econ, Stat & Coop Svc 4/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Service	3.6	3.9	3.9	4.4	4.6	4.5	6.3	6.7	6.9	7.1	7.9
Economics & Statistics Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	38.1	38.7	38.8	41.2	44.1	42.2	49.4	51.6	50.0	58.1	56.5
Off of Internat'l Cooperation & Dev	1.7	1.1	2.3	3.6	1.5	3.7	1.9	3.6	1.7	1.6	1.0
Office of Transportation	.5	.5	.5	.6	.6	.5	.5	.5	-	-	-
Nat'l Agricultural Stat svc	-	2.3	2.5	2.7	2.8	2.6	1.1	1.2	1.0	1.0	1.1
Department of Commerce, total	16.2	16.9	19.2	20.6	23.2	26.5	25.8	30.9	29.1	30.0	32.7
Bureau of the Census	.4	.3	.3	.4	.4	.5	.7	1.3	1.2	.5	.5
Economic Development Admin	.2	-	.5	-	-	-	-	-	-	-	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Minority Business Dev Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	15.6	16.5	18.4	20.2	22.1	25.7	25.1	26.3	27.9	29.5	32.2
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	-	-	-	-	-	-	-	3.2	-	-	-
Nat'l Telecomm & Info Admin	-	-	-	-	-	-	-	-	-	-	-
Office of Telecommunications	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.0	.0	-	.8	.3	-	-	-	-	-
Department of Defense, total	604.3	686.7	785.6	847.9	861.4	923.9	907.6	876.9	947.9	892.2	972.2
Department of the Army	148.1	187.7	208.3	222.1	240.8	248.5	217.0	165.7	187.2	176.6	190.6
Department of the Navy	238.0	280.3	305.4	315.8	343.1	337.3	354.3	341.8	354.0	354.0	399.3
Department of the Air Force	125.8	145.8	164.2	192.4	198.3	216.5	221.6	196.4	202.8	177.4	201.4
Defense agencies	92.4	72.9	107.7	117.6	79.2	121.7	114.8	173.0	203.9	184.2	180.9
Department of Education, total	20.6	14.2	14.2	12.2	14.6	4.5	3.1	4.4	4.4	5.0	6.9
Department of Energy	586.3	642.2	767.7	830.4	942.6	959.7	1,068.5	1,184.8	1,410.9	1,531.0	1,677.2
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Human Development Svcs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of International Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Continued on next page

Table C-151B. Federal obligations for basic research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	1,900.4	2,144.7	2,475.4	2,814.5	3,232.5	3,338.8	3,827.9	4,081.4	4,388.0	4,661.7	4,940.4
Alcohol, Drug Abuse & Mental Health Administration	116.3	117.3	145.0	170.8	196.8	203.4	232.2	265.8	308.0	357.5	398.5
Health Resources & Svc's Admin	N/A	.6	.8	.8	.9	1.0	1.3	1.1	1.2	1.1	1.1
Health Services Administration	3.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	.4	.4	-	-	-	-	-	-	-	-	-
National Institutes of Health	1,766.8	2,020.7	2,313.0	2,624.8	3,018.0	3,118.6	3,575.5	3,795.1	4,053.3	4,257.5	4,501.1
Off of Asst't Secy for Hlth	12.4	5.7	16.6	18.1	16.9	15.8	18.9	19.4	25.6	45.6	39.7
Office of the Secretary	.6	-	-	-	-	-	-	-	-	-	-
Dept of the Interior, total	80.7	76.5	103.0	125.9	138.3	133.0	134.9	126.5	188.9	200.3	191.1
Bonneville Power Admin 6/	.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Land Management	-	-	-	-	-	-	-	-	-	-	1.3
Bureau of Mines	13.6	15.9	23.5	40.5	49.9	44.9	45.6	32.1	43.9	42.9	32.1
Bureau of Reclamation	.1	.1	.1	.1	.3	.1	.1	.1	.0	-	.0
Geological Survey	53.5	52.6	64.7	78.9	80.5	83.4	84.9	89.5	140.2	153.2	152.6
National Park Service	-	-	-	-	-	-	-	-	-	-	-
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	1.5	.5	7.4	.1	1.9	1.0	-	-	-	-	-
Office of Water Rsch & Tech	7.6	3.3	.5	.4	-	-	-	-	-	-	-
US Fish & Wildlife Service	3.9	4.1	6.9	5.9	5.7	3.6	4.3	4.8	4.8	4.2	5.0
Department of Justice, total	4.6	3.1	3.6	4.7	4.2	5.3	8.1	7.6	6.8	9.0	6.1
Federal Prison System	-	-	-	-	-	-	-	-	-	-	-
Office of Justice Programs	4.6	3.1	3.6	4.7	4.2	5.3	8.1	7.6	6.8	9.0	6.1
Department of Labor, total	3.7	6.5	5.3	5.0	3.3	.9	1.4	.4	.3	.3	.3
Bureau of Labor Statistics	-	-	-	-	-	-	-	-	-	-	-
Employment & Training Admin	3.7	6.5	5.3	5.0	3.3	.9	1.4	.4	.3	.3	.3
Labor-Management Svcs Admin	-	-	-	-	-	-	-	-	-	-	-
Department of State, total	-	-	-	-	-	-	2.6	3.1	3.4	3.3	3.3
Agency for Internat'l Dev 7/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Departmental funds	-	-	-	-	-	-	2.6	3.1	3.4	3.3	3.3
Dept of Transportation, total	1.2	1.0	.9	3.5	1.1	.6	.2	-	-	-	-
Coast Guard	.3	-	.4	-	-	-	-	-	-	-	-
Federal Highway Administration	-	-	-	-	-	-	-	-	-	-	-
Federal Railroad Admin	-	-	-	-	-	-	-	-	-	-	-
Maritime Administration	.7	1.0	.5	3.5	1.1	.6	.2	-	-	-	-
Office of the Secretary	-	-	-	-	-	-	-	-	-	-	-
Rsch & Special Programs Admin	.3	-	-	-	-	-	-	-	-	-	-

Continued on next page

Table C-151B. Federal obligations for basic research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	2.3	2.2	3.5	4.0	4.8	5.1	4.7	4.8	3.4	3.6	3.5
Bureau of Engraving & Printing	-	-	.6	.8	.3	.4	.1	.1	.5	.2	.1
Internal Revenue Service	2.3	2.2	2.9	3.2	4.4	4.5	4.4	4.7	2.9	3.4	3.4
Office of Protective Research .	-	-	-	-	-	.2	.2	.1	-	-	-
Department of Veterans Affairs ..	15.0	12.9	14.1	15.8	15.4	14.8	17.2	17.3	16.6	16.2	15.2
Other agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Agency for International Dev 7/..	-	-	4.1	3.0	1.7	4.3	2.8	3.0	3.1	5.3	1.6
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	.1	-	-	-	-	-	-	-	-	-	-
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	10.5	32.7	22.2	29.6	38.6	38.5	31.1	27.2	50.7	75.6	97.6
Fed Emergency Management Agency .	2.6	1.4	-	-	-	N/A	N/A	N/A	N/A	N/A	N/A
Federal Trade Commission	.9	1.0	1.2	1.3	1.5	1.6	-	-	-	-	-
General Services Administration .	-	-	-	.1	.1	-	-	-	-	-	-
Library of Congress	.2	.1	.3	.6	.6	.4	.4	.4	.4	.3	.9
Nat'l Aeronautics & Space Admin .	531.1	535.7	617.0	754.5	750.9	916.7	1,013.7	1,112.7	1,417.4	1,659.2	1,803.3
National Archives	N/A	N/A	N/A	N/A	.1	-	.5	.2	.1	.1	.2
National Science Foundation	896.6	916.1	999.1	1,132.3	1,261.8	1,275.2	1,371.2	1,433.2	1,562.6	1,651.0	1,853.2
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Smithsonian Institution	44.9	52.4	56.0	63.6	71.1	63.3	71.5	75.1	80.2	87.5	100.1
Spec Action Off for Drug Abuse Prevention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee Valley Authority	4.8	4.6	5.6	5.1	5.5	7.3	3.9	3.2	2.9	3.0	2.0
US Information Agency 8/.....	.1	-	-	-	-	-	-	-	-	-	-

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-79.

2/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

5/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

6/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

7/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

8/ Includes the Former International Communication Agency for fisc al years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-152A. Federal obligations for applied research by selected agency: fiscal years 1970-80

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	2,974.9	3,143.0	3,360.8	3,349.4	3,787.6	4,141.3	4,851.9	5,255.5	5,908.2	6,342.3	6,923.2
Department of Agriculture, total	156.2	173.7	199.9	211.4	219.5	247.8	270.9	319.6	351.8	375.5	381.8
Agricultural Cooperative Svc 1/	.7	.8	1.1	1.2	1.4	1.2	1.2	N/A	N/A	N/A	1.6
Agricultural Marketing Svc 2/	N/A	N/A	-	-	-	-	-	-	-	.4	1.0
Agricultural Research Svc 3/	79.1	89.8	101.0	105.1	107.9	112.9	125.9	155.4	161.3	172.7	170.8
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cooperative State Rsch Svc 4/	37.9	42.0	51.2	55.4	55.4	62.7	70.3	78.9	91.9	102.1	109.0
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	25.9	28.8	29.1	N/A
Economic Research Service	10.6	10.9	11.4	12.2	12.7	18.1	20.4	N/A	N/A	N/A	N/A
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	24.5
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	27.4	29.5	34.6	36.8	41.6	52.2	51.9	59.4	69.8	71.1	72.3
Human Nutrition Info Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Agricultural Library	.2	.4	.2	.3	.1	.0	.0	-	-	-	-
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.6
Office of Transportation 2/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Nat'l Agricultural Stat svc	.4	.4	.4	.4	.4	.7	1.1	N/A	N/A	N/A	N/A
Department of Commerce, total	76.0	98.0	135.5	123.5	121.5	136.3	144.7	163.8	181.0	207.6	238.5
Bureau of the Census	1.4	1.7	1.5	.4	.5	.4	2.0	1.8	1.8	1.2	1.4
Economic Development Admin	3.8	1.7	.8	.9	.9	1.1	.4	1.5	3.2	8.0	2.2
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	4.9	12.8	17.9	4.2	4.6	4.0	3.8	2.5	4.3	10.2	10.1
Minority Business Dev Agency	-	-	-	-	.2	.9	.4	.5	-	-	-
Nat'l Inst of Standards & Tech	12.7	14.2	25.0	26.6	26.5	29.4	31.7	38.0	42.6	43.0	46.1
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	.0	1.1	1.8	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	52.9	65.6	90.2	89.1	87.1	99.7	104.9	115.8	127.9	142.7	168.8
Nat'l Telecomm & Info Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.9	1.1	2.4	9.6
Office of Telecommunications	-	1.6	-	2.0	1.5	.5	.2	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	.1	.2
Patent and Trademark Office	.3	.4	-	-	.2	.3	.2	-	-	-	-
US Travel & Tourism Admin	-	-	-	.4	-	-	-	-	-	-	-
Department of Defense, total	1,012.9	987.1	1,175.8	1,129.4	1,131.5	1,130.9	1,200.6	1,342.6	1,413.6	1,542.6	1,721.4
Department of the Army	245.8	231.4	289.1	300.2	290.1	264.7	281.0	299.0	305.7	333.6	347.1
Department of the Navy	238.1	239.3	281.8	273.7	287.1	287.8	308.3	343.6	354.2	375.2	396.2
Department of the Air Force	239.9	237.5	255.9	261.1	264.1	276.9	298.4	341.0	353.6	387.2	429.1
Defense agencies	285.0	275.9	345.0	291.2	287.3	299.9	312.2	357.8	392.5	446.6	549.1
Defense Civil Preparedness Agency	4.1	3.0	4.0	3.2	2.7	1.7	.7	1.3	7.5	N/A	N/A
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	72.8	70.0
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	501.8	661.7	668.9	754.2
Dept of Hlth, Education, & Welfare, total	528.0	657.4	766.7	776.9	996.6	1,021.1	1,164.6	1,294.8	1,448.4	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	69.6	102.3	73.2	84.1	89.3	98.8	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	38.3	44.9	42.6	49.6	55.3	60.1	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	21.8	25.6	30.4	30.2	43.5	35.9	37.1	42.9	64.1	N/A	N/A
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	30.0	19.4	N/A	N/A
Health Resources Admin	N/A	N/A	-	3.7	2.3	16.7	27.9	7.4	5.0	N/A	N/A
Health Services Administration	N/A	N/A	N/A	8.6	8.7	9.4	9.2	7.5	10.0	N/A	N/A
Hlth Svcs & Mental Hlth Admin	100.0	115.6	125.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	-	4.7	4.7	2.2	5.7	15.2	16.3	N/A	N/A
National Institutes of Health	336.0	409.8	513.7	539.1	714.3	775.7	847.4	935.9	1,051.5	N/A	N/A
Off of Asst't Secy for Educ	-	-	-	-	-	.6	1.0	1.0	1.3	N/A	N/A
Off of Asst't Secy for Hlth	-	-	-	-	-	-	-	24.6	27.5	N/A	N/A
Office of Child Development	1.0	7.9	12.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	25.3	56.0	32.3	6.6	6.3	5.3	21.4	11.9	13.3	N/A	N/A
Off of Human Development Svcs	-	-	-	10.1	17.2	7.1	34.6	46.5	42.9	N/A	N/A
Office of the Secretary	N/A	-	-	-	25.6	22.2	18.8	16.0	25.1	N/A	N/A
Social & Rehabilitation Svc	31.9	32.1	39.9	48.3	8.9	9.6	18.6	N/A	N/A	N/A	N/A
Social Security Administration	12.0	10.5	13.0	17.7	17.8	20.8	9.1	11.2	12.9	N/A	N/A

Continued on next page

Table C-152A. Federal obligations for applied research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,439.7	1,570.1
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	118.9	128.8
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	76.3	87.3
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	61.0	75.4
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	31.8	45.7
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.9	5.1
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8.2	6.0
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.9	19.1
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1,066.4	1,145.1
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	16.3	14.1
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	22.6	22.0
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.3	21.4
Dept of Housing & Urban Dev	7.1	10.5	12.7	18.4	33.8	33.5	36.9	32.7	30.5	23.8	19.6
Dept of the Interior, total	81.1	95.1	104.3	111.4	94.8	179.1	205.1	192.4	217.6	266.9	282.8
Bonneville Power Admin 7/	.5	.3	.3	.3	.4	.5	.5	N/A	N/A	N/A	N/A
Bureau of Land Management	.7	.8	.8	.7	.6	.7	.7	.8	1.0	1.1	1.3
Bureau of Mines	27.6	32.2	32.8	34.6	24.9	51.0	72.5	48.3	48.4	65.4	71.3
Bureau of Reclamation	7.1	9.1	9.9	9.3	6.8	7.3	7.9	9.2	10.4	11.3	12.7
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	19.6	21.3	30.1	35.1	39.0	68.0	70.8	77.2	87.4	96.1	98.5
Heritage Conservation & Recreation Svc	.1	.2	.0	.0	.0	.0	.0	.0	-	-	-
Mineral Management Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Park Service	-	.4	.4	.7	1.5	7.7	8.7	7.5	7.7	8.9	8.2
Office of Coal Research	2.3	5.0	4.2	5.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	.2	.3	3.4	.4	1.3	.1	1.4	-	-	-
Off of Surface Mining Reclamation & Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	2.2	5.0	7.5
Office of Water Rsch & Tech	13.5	13.9	14.6	10.2	11.2	11.6	10.4	9.4	10.8	13.2	11.8
US Fish & Wildlife Service	9.6	11.9	10.9	11.5	9.9	31.0	33.7	38.6	49.7	65.9	71.4
Department of Justice, total	5.3	6.5	12.4	4.9	16.5	9.4	13.8	12.5	31.0	20.9	19.2
Drug Enforcement Admin	.8	1.5	1.2	1.6	1.7	.9	.5	.9	.5	.7	.8
Federal Prison System	-	-	-	-	-	-	-	.1	.7	.5	.9
Immigration & Naturalization Svc	-	-	-	-	-	.0	.1	.1	.2	.1	.2
Office of Justice Programs	4.5	5.0	11.2	3.4	14.8	8.5	13.2	11.3	28.6	18.0	16.1
Office of Legal Policy	-	-	-	-	-	-	-	-	1.1	1.6	1.3
Department of Labor, total	9.2	11.1	12.2	12.0	16.0	14.4	17.0	18.0	22.0	39.8	32.6
Bureau of Labor Statistics	1.1	1.5	2.5	.8	.6	.7	.8	.9	.8	.9	.9
Employment Standards Admin	2.2	1.5	1.6	1.3	.9	3.2	4.3	4.4	3.7	5.3	4.9
Employment & Training Admin	5.9	7.7	7.8	8.3	11.1	6.6	6.9	5.8	11.4	24.2	16.2
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Labor-Management Svcs Admin 8/	-	-	-	-	.6	.5	.4	3.2	2.6	2.7	2.8
Occupational Safety & Hlth Administration	N/A	.3	-	.4	.5	1.4	2.9	3.4	1.3	5.1	6.3
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	.2	.2	1.2	2.3	2.0	1.8	.2	2.2	1.6	1.4
Pension Benefit Guarantee Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Post Office Department	4.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	18.9	29.0	25.7	24.6	17.8	21.0	25.1	38.3	49.1	2.6	2.0
Agency for Internat'l Dev 9/	18.6	28.6	25.2	23.9	16.8	20.2	24.0	36.2	46.6	N/A	N/A
Departmental funds	.1	.4	.6	.8	1.1	.7	1.1	2.1	2.5	2.6	2.0
Peace Corps	.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	82.9	96.7	97.6	77.1	61.5	53.8	31.1	51.8	66.5	67.0	82.4
Coast Guard	4.0	4.7	5.1	5.1	6.6	4.2	2.6	2.5	2.3	10.9	8.1
Federal Aviation Admin	10.0	17.3	22.2	17.8	13.9	14.1	3.6	4.7	6.8	7.5	8.2
Federal Highway Administration	28.3	23.7	20.1	1.8	3.3	3.4	1.9	5.3	4.9	4.4	4.6
Federal Railroad Admin	9.6	17.9	9.3	15.4	1.6	2.7	6.6	6.6	9.2	7.5	7.9
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Highway Traffic Safety Administration	15.9	14.7	20.7	21.7	14.9	12.0	9.9	27.5	38.0	30.0	38.6
Office of the Secretary	9.0	8.5	12.5	8.9	15.1	14.4	3.9	4.2	4.1	.6	.6
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.1	5.0	5.5
Urban Mass Trans Admin	6.2	9.7	7.8	6.3	6.2	2.9	.6	1.0	1.1	1.1	8.9

Continued on next page

Table C-152A. Federal obligations for applied research by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.3	0.4	0.5	0.4	0.5	0.4	1.5	2.1	4.1	4.5	4.0
Bureau of Alcohol, Tobacco, & Firearms	N/A	N/A	-	-	-	-	-	.4	.4	.7	.3
Bureau of Engraving & Printing	.3	.4	.5	.4	.5	.4	1.5	1.7	1.9	.6	1.3
Internal Revenue Service	-	-	-	-	-	-	-	-	1.8	3.3	2.2
Office of Protective Research .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
United States Customs Service .	-	-	-	-	-	-	-	-	-	-	.1
Department of Veterans Affairs ..	52.5	59.0	63.9	66.5	75.2	83.3	76.2	83.2	90.5	101.8	103.6
Other agencies											
Action	N/A	.1	-	-	.0	.1	.0	.0	.2	-	-
Advisory Comm on Intergov'tl Relations	.6	.5	.7	.9	1.1	1.2	1.0	1.5	1.7	1.7	2.2
Agency for International Dev 9/..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	66.9	79.7
Appalachian Regional Commission .	-	3.0	-	-	-	-	.7	.6	.3	.7	.6
Atomic Energy Commission	146.4	152.1	148.8	149.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.2	.2	.3	.3	1.1	1.0	.8	.7	N/A	N/A	N/A
Community Services Admin	N/A	N/A	N/A	N/A	.5	.2	-	1.0	2.0	1.8	1.3
Consumer Product Safety Comm	N/A	N/A	-	.3	2.6	3.0	3.5	3.7	.9	1.8	1.6
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	195.2	280.7	400.7	N/A	N/A	N/A	N/A
Environmental Protection Agency .	47.5	47.7	45.0	65.3	86.8	124.3	141.7	197.0	246.7	248.9	231.5
Federal Communications Comm	1.0	.6	.7	1.1	.9	1.1	1.5	2.0	2.4	2.9	3.4
Fed Emergency Management Agency .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.9	6.7	6.7
Federal Energy Administration ...	N/A	N/A	N/A	N/A	-	.2	1.0	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	.4	.4	.5	.5	.7	.7	.8	1.7	1.0	.9	1.2
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Trade Commission	.4	.4	.6	.7	.9	.9	.6	.8	.9	1.1	1.5
General Services Admin	.2	.1	.1	.3	.9	.6	.3	.3	.4	.1	.1
International Trade Commission ..	-	-	-	-	-	-	1.5	2.6	3.1	3.4	2.1
Interstate Commerce Commission ..	-	-	-	-	-	-	.1	.1	.3	.2	.1
Library of Congress	1.0	1.0	1.2	1.4	.4	.4	.3	.3	.4	.5	.5
Nat'l Aeronautics & Space Admin .	672.7	595.4	433.0	443.6	539.8	625.8	929.6	792.3	865.4	938.4	1,050.5
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	29.8	45.7	59.6	71.5	105.0	84.0	72.1	63.4	65.5	66.8	58.4
Nuclear Regulatory Commission ...	N/A	N/A	N/A	N/A	42.3	64.2	88.4	112.3	133.9	148.8	182.7
Office of Economic Opportunity ..	27.8	59.9	51.1	31.4	-	-	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	1.0	.6	.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1.0	1.4	2.6
Office of Science and Technology	.6	.6	.6	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	.2	1.2	.6	.3	2.1	1.5	-	-	N/A	N/A
Postal Service	N/A	1.0	-	-	-	-	-	-	-	-	-
Small Business Administration ...	.1	-	-	-	-	.2	.1	.5	-	-	-
Spec Action Off for Drug Abuse Prevention	N/A	N/A	-	11.0	11.1	3.8	-	N/A	N/A	N/A	N/A
Tennessee Valley Authority	6.4	7.5	8.3	12.5	11.6	14.7	16.5	19.3	9.7	12.4	11.2
US Arms Control & Disarmament Agency	3.7	1.4	1.5	1.7	1.1	1.0	1.4	1.8	2.5	2.7	3.0
US Information Agency 11/.....	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Marketing service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-152B. Federal obligations for applied research by selected agency: fiscal years 1981-91

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	7,171.5	7,540.6	7,993.4	7,911.4	8,314.7	8,349.1	8,997.9	9,176.4	10,163.3	10,335.2	10,965.2
Department of Agriculture, total	426.9	435.7	455.5	442.2	465.6	463.5	473.4	504.6	517.3	552.2	570.1
Agricultural Cooperative Svc 1/	1.7	1.7	2.1	2.2	2.9	2.6	2.7	2.7	2.8	2.8	2.8
Agricultural Marketing Svc 2/	.9	1.0	1.1	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.4
Agricultural Research Svc 3/	181.5	186.2	202.6	183.7	191.8	188.3	201.1	208.2	209.4	218.8	235.1
Animal & Plant Health Inspection Service	N/A	N/A	N/A	N/A	N/A	4.2	4.9	5.6	7.4	7.8	8.3
Cooperative State Rsch Svc 4/	115.5	127.7	133.5	136.2	142.8	137.4	138.0	152.6	164.7	175.0	172.5
Econ, Stat & Coop Svc 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Economic Research Service	35.8	35.3	34.9	39.3	41.7	40.1	38.5	41.4	42.6	43.9	48.4
Economics & Statistics Svc 6/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	.8	.6	.7	.6	.8	.8	.7
Forest Service	81.8	69.0	65.1	63.9	65.7	67.5	73.5	79.9	77.5	90.2	87.7
Human Nutrition Info Service	-	8.5	8.2	6.0	6.7	12.8	6.8	8.2	8.4	9.0	10.7
National Agricultural Library	-	-	-	-	-	-	-	-	-	-	-
Off of Internat'l Cooperation & Dev	1.9	1.2	2.5	3.9	5.8	2.9	3.3	1.2	.6	.5	.3
Office of Transportation 2/	.3	.3	.3	.3	.5	.4	.4	.4	-	-	-
Nat'l Agricultural Stat svc	7.5	4.7	5.1	5.5	5.6	5.4	2.3	2.4	1.9	2.1	2.2
Department of Commerce, total	233.2	259.2	265.6	276.1	301.0	312.9	312.8	311.5	321.9	337.5	329.4
Bureau of the Census	2.6	1.6	1.9	2.0	2.1	2.1	2.1	2.4	1.8	2.4	2.4
Economic Development Admin	1.6	1.6	4.8	5.1	2.0	2.3	5.0	4.2	1.0	1.2	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Minority Business Dev Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	50.6	57.4	63.1	63.5	64.5	63.5	64.3	72.6	77.6	86.7	90.9
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	168.5	188.5	188.9	197.7	224.4	237.5	234.4	225.0	234.6	240.2	228.8
Nat'l Telecomm & Info Admin	9.9	10.1	6.9	7.7	7.9	7.6	7.0	7.3	6.9	7.0	7.4
Office of Telecommunications	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	.0	.1	-	.0	-	-	-	-
Patent and Trademark Office	-	-	-	-	-	-	-	-	-	-	-
US Travel & Tourism Admin	-	-	-	-	-	-	-	-	-	-	-
Department of Defense, total	1,996.6	2,266.1	2,437.0	2,200.7	2,306.9	2,303.3	2,440.0	2,362.2	2,708.2	2,342.7	2,497.3
Department of the Army	388.4	451.6	485.3	486.7	582.6	578.8	692.9	588.0	636.3	542.6	604.3
Department of the Navy	460.0	498.4	521.6	449.6	448.2	447.1	432.5	406.0	429.2	424.7	464.2
Department of the Air Force	491.5	488.1	524.2	547.7	538.4	542.5	563.2	576.7	604.6	529.2	580.2
Defense agencies	656.7	828.1	905.9	716.6	737.7	735.0	751.3	791.5	1,038.1	846.2	848.7
Defense Civil Preparedness Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total	33.2	56.3	61.9	68.7	77.3	91.3	103.8	106.6	117.5	128.2	147.6
Department of Energy	827.3	1,053.9	1,193.4	1,194.5	1,198.4	1,080.7	1,029.4	1,050.6	1,020.8	1,109.2	1,064.1
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Care Financing Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Educ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Child Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Off of Human Development Svcs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social & Rehabilitation Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Continued on next page

Table C-152B. Federal obligations for applied research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	1,591.9	1,460.9	1,545.4	1,651.5	1,795.8	1,850.8	2,194.0	2,415.6	2,700.4	2,915.4	3,036.6
Alcohol, Drug Abuse & Mental Health Administration	121.4	128.7	155.4	165.2	179.7	191.5	241.1	286.6	384.7	458.7	516.3
Centers for Disease Control	74.8	75.0	78.2	46.3	47.6	52.2	66.2	88.7	117.8	125.9	130.8
Food & Drug Administration	71.4	73.0	74.2	77.8	82.1	79.4	85.0	91.0	99.0	110.0	125.5
Health Care Financing Admin	38.6	29.1	30.2	33.1	33.5	29.0	27.3	28.2	49.1	50.0	36.0
Health Resources Admin	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Resources & Svc's Admin	N/A	6.1	10.2	15.4	17.3	11.2	8.0	9.0	9.3	9.3	9.4
Health Services Administration	6.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	39.5	8.3	6.9	4.5	5.8	6.8	9.4	7.1	8.5	11.4	11.9
National Institutes of Health	1,181.5	1,103.8	1,165.2	1,285.6	1,410.1	1,469.0	1,739.1	1,885.6	2,008.5	2,116.8	2,178.8
Off of Asst't Secy for Hlth	16.3	8.2	-	-	-	-	-	-	-	10.2	6.4
Office of the Secretary	18.9	13.1	14.4	10.0	9.4	6.1	8.2	4.7	7.8	5.0	5.0
Social Security Administration	18.0	15.5	10.8	13.5	10.4	5.6	9.8	14.7	15.8	18.0	16.6
Dept of Housing & Urban Dev	16.7	10.3	11.3	6.3	6.5	5.3	5.5	6.3	6.1	7.5	17.7
Dept of the Interior, total	289.2	275.0	254.7	254.3	231.0	234.9	247.3	266.0	253.0	270.2	261.1
Bonneville Power Admin 7/	6.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bureau of Land Management	1.5	2.4	2.0	1.8	2.8	2.1	2.1	2.2	2.0	2.1	3.0
Bureau of Mines	54.4	65.2	55.9	56.7	36.7	36.6	39.6	54.1	49.3	52.0	38.6
Bureau of Reclamation	13.3	8.9	8.7	8.8	10.9	9.6	10.1	3.6	3.5	4.2	6.1
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	115.8	99.4	89.9	125.1	130.0	127.8	131.7	135.8	126.8	132.0	134.8
Heritage Conservation & Recreation Svc	-	-	-	-	-	-	-	-	-	-	-
Mineral Management Service	N/A	-	1.5	1.5	1.4	1.1	1.0	1.2	2.2	2.0	2.5
National Park Service	10.4	11.2	13.7	14.0	15.0	17.3	18.5	19.4	19.4	19.5	22.8
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	.1	-	-	-
Off of Surface Mining Reclamation & Enforcement	5.8	1.5	1.5	.8	2.0	2.3	1.0	1.0	.7	.8	.8
Office of Water Rsch & Tech	8.2	6.8	.8	3.2	-	-	-	-	-	-	-
US Fish & Wildlife Service	73.9	79.6	80.6	42.3	32.2	38.1	43.3	48.7	49.1	57.6	52.5
Department of Justice, total	14.9	13.2	17.1	13.2	15.1	17.0	11.8	9.8	10.7	12.1	12.3
Drug Enforcement Admin	.4	1.3	.9	.7	.5	.8	.7	.6	.5	.5	.5
Federal Prison System	1.7	.9	1.3	1.2	1.1	2.7	2.2	2.1	2.1	1.8	1.8
Immigration & Naturalization Svc	.1	.3	.3	.3	.2	.2	.2	.3	.1	.4	.4
Office of Justice Programs	12.0	10.3	14.4	11.0	13.0	13.2	8.6	6.8	8.0	9.4	9.6
Office of Legal Policy	.7	.4	.2	-	.3	.2	.1	-	-	-	-
Department of Labor, total	54.5	10.6	12.7	11.2	9.1	8.7	19.0	26.4	21.8	22.0	26.3
Bureau of Labor Statistics	.3	.3	.7	.5	.6	.6	6.5	7.0	7.0	7.1	7.2
Employment Standards Admin	3.2	1.4	1.4	.9	.0	-	1.0	.1	.1	.3	.2
Employment & Training Admin	45.1	2.1	2.6	1.0	.3	2.6	4.0	6.5	5.7	5.5	6.4
Labor-Management Relations and Cooperative Programs 8/	N/A	N/A	N/A	.3	.3	.2	.3	.4	.3	.1	.1
Labor-Management Svcs Admin 8/	1.8	.7	.9	-	-	-	-	-	-	-	-
Occupational Safety & Hlth Administration	3.0	4.9	5.3	5.1	4.5	3.6	4.1	4.2	4.5	4.1	4.1
Office of Pension & Welfare Benefit Programs	N/A	N/A	N/A	1.2	1.6	.3	1.0	2.7	1.4	2.4	2.6
Office of the Secretary	1.1	.9	1.5	1.9	1.7	1.3	1.8	5.2	2.5	2.2	5.4
Pension Benefit Guarantee Corporation	.1	.3	.3	.3	.2	.1	.3	.3	.3	.3	.3
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	1.6	1.5	1.5	1.6	1.5	1.5	.3	1.0	1.3	1.2	1.2
Agency for Internat'l Dev 9/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Departmental funds	1.6	1.5	1.5	1.6	1.5	1.5	.3	1.0	1.3	1.2	1.2
Peace Corps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	87.4	65.7	71.7	74.2	70.2	67.6	68.4	91.0	120.3	121.2	129.2
Coast Guard	14.7	1.7	.8	7.2	5.4	3.5	3.7	5.4	4.6	5.6	6.1
Federal Aviation Admin	8.2	7.0	12.5	15.0	17.3	14.0	11.1	13.3	23.6	28.7	31.6
Federal Highway Administration	5.1	5.3	7.3	6.1	6.3	14.7	20.5	43.5	56.4	50.7	51.5
Federal Railroad Admin	6.2	3.1	2.8	12.3	11.4	12.5	10.4	8.2	7.5	10.0	12.4
Maritime Administration	8.9	5.6	5.7	5.1	7.0	6.2	3.1	.5	-	-	-
Nat'l Highway Traffic Safety Administration	29.4	21.3	21.4	24.7	20.9	16.1	18.9	19.1	26.2	23.9	25.4
Office of the Secretary	.7	.3	.3	.9	.9	.4	.4	.7	1.3	1.8	1.6
Rsch & Special Programs Admin	4.9	2.1	2.6	1.8	.5	.3	.2	.4	.7	.6	.6
Urban Mass Trans Admin	9.3	19.4	18.3	1.0	.5	-	-	-	-	-	-

Continued on next page

Table C-152B. Federal obligations for applied research by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	2.9	5.9	6.7	6.6	13.6	12.7	12.7	11.1	13.0	15.4	15.3
Bureau of Alcohol, Tobacco, & Firearms	.1	-	-	-	-	-	-	-	-	-	-
Bureau of Engraving & Printing	.9	2.8	1.4	1.4	3.1	2.7	2.7	1.1	.9	1.4	1.1
Internal Revenue Service	1.8	3.1	5.0	4.9	10.2	9.5	9.7	9.0	11.3	13.1	13.1
Office of Protective Research .	-	-	.3	.1	.2	.2	.1	.3	.4	.5	.5
United States Customs Service .	.1	.0	-	.1	.1	.2	.2	.7	.4	.4	.7
Department of Veterans Affairs ..	112.7	110.1	132.0	156.1	193.7	155.1	173.1	178.8	197.1	201.0	175.1
Other agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Advisory Comm on Intergov't1 Relations	2.2	2.0	2.1	2.1	2.4	2.1	1.9	1.8	1.1	1.4	1.4
Agency for International Dev 9/..	86.4	127.9	152.6	164.0	158.1	180.7	151.2	132.1	216.0	161.7	164.3
Appalachian Regional Commission .	.3	.3	.2	.4	.2	.2	.1	.2	.8	1.0	1.0
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Community Services Admin	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consumer Product Safety Comm	.2	.1	.3	1.1	1.4	1.1	.6	.1	.5	.2	.4
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Protection Agency .	207.8	210.7	152.4	142.3	176.0	179.3	246.1	240.7	222.6	240.4	265.1
Federal Communications Comm	1.8	1.2	1.3	.9	1.2	.9	1.0	1.2	1.1	2.0	1.3
Fed Emergency Management Agency .	6.4	7.8	3.3	6.1	2.9	N/A	N/A	N/A	N/A	N/A	N/A
Federal Energy Administration ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Home Loan Bank Board 10/.	1.0	2.7	3.0	2.6	2.8	3.3	3.4	3.4	N/A	N/A	N/A
Office of Thrift Supervision 10/.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.1	5.8	6.4
Federal Trade Commission	.2	.2	.2	.2	.3	.3	.5	.4	.4	.5	.5
General Services Admin	.4	.5	.2	.4	.3	.9	1.6	2.3	.5	.8	.1
International Trade Commission ..	3.4	3.8	4.7	5.0	5.8	6.9	7.2	8.1	8.7	9.6	10.5
Interstate Commerce Commission ..	-	-	-	-	-	-	-	-	-	-	-
Library of Congress	.7	.7	1.0	1.5	1.5	1.1	1.1	1.2	1.2	1.2	2.2
Nat'l Aeronautics & Space Admin .	876.0	871.4	927.8	954.7	1,032.7	1,152.3	1,255.5	1,218.9	1,461.4	1,636.0	1,969.8
National Archives	N/A	N/A	N/A	N/A	.1	-	.3	.3	.1	.1	.3
National Science Foundation	58.9	57.1	62.9	70.5	83.8	78.1	99.3	99.6	107.8	114.8	130.1
Nuclear Regulatory Commission ...	219.7	220.3	207.3	190.7	150.0	123.8	122.5	108.5	114.8	109.3	116.2
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Emergency Preparedness	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management ..	3.4	-	-	-	-	-	-	-	-	-	-
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Small Business Administration ...	-	-	-	-	-	-	-	-	-	-	-
Spec Action Off for Drug Abuse Prevention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee Valley Authority	9.4	8.1	6.7	9.2	8.9	10.5	13.8	15.3	11.7	13.8	9.8
US Arms Control & Disarmament Agency	1.6	1.3	.8	1.2	1.1	.9	.4	.8	1.2	.6	2.0
US Information Agency 11/.....	1.0	-	.0	1.4	.1	1.6	-	.1	-	.3	.4

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Includes programs of the Farmer Cooperative Service for fiscal years 1970-76.

2/ Fiscal year 1979 was the first year in which Congress appropriated funds to the Agricultural Marketing Service. Data reported for the Agricultural Marketing service for fiscal years 1989-91 include funds for the Office of Transportation.

3/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

4/ Includes the former Cooperative State Research Service of the Science and Education Administration for fiscal years 1978-80.

5/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

6/ Includes programs of the Economic Research Service and the Statistical Reporting Service for fiscal year 1980.

7/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

8/ In 1984 the Labor-Management Services Administration was replaced by Labor-Management Relations and Cooperative Programs.

9/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

10/ In 1989 the Federal Home Loan Bank Board was replaced by the Office of Thrift Supervision.

11/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-153A. Federal obligations for development by selected agency: fiscal years 1970-80

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all agencies	10,438.1	10,419.3	10,948.2	11,218.7	11,234.9	12,309.1	13,160.3	14,936.3	16,238.4	17,610.1	18,233.1
Department of Agriculture, total	9.2	12.8	12.4	12.4	13.6	18.1	20.2	22.9	26.8	31.1	30.2
Agricultural Marketing Svc 1/	N/A	N/A	-	-	-	-	-	-	-	.5	.3
Agricultural Research Svc 2/	8.2	11.6	9.9	9.8	10.2	13.0	14.5	18.0	21.8	24.9	23.3
Econ, Stat & Coop Svc 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.8	-	-	N/A
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Forest Service	.9	.9	2.2	2.3	3.2	4.9	5.4	4.2	5.0	5.0	5.5
Off of Internat'l Cooperation & Dev	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.4
Office of Transportation 1/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.7	.8
Nat'l Agricultural Stat svc	.2	.2	.3	.3	.2	.2	.3	N/A	N/A	N/A	N/A
Department of Commerce, total	27.5	30.0	43.9	60.4	51.4	71.0	73.1	68.6	90.9	89.9	88.1
Bureau of the Census	1.4	2.1	2.1	.5	.4	.4	.4	.6	1.1	1.2	1.2
Economic Development Admin	5.0	2.9	5.7	5.4	3.2	9.2	13.0	12.5	32.6	34.6	29.8
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maritime Administration	7.7	7.5	1.5	17.8	17.3	17.1	14.0	11.1	12.6	7.4	7.3
Minority Business Dev Agency	-	-	.5	2.1	.8	3.7	1.6	2.7	-	-	-
Nat'l Inst of Standards & Tech	2.5	3.9	4.9	5.8	7.6	8.4	9.9	8.3	9.8	16.0	17.3
Nat'l Fire Prevention & Control Administration	N/A	N/A	-	-	-	2.9	3.2	2.1	N/A	N/A	N/A
Nat'l Oceanic & Atmospheric Administration	10.8	13.4	24.9	26.5	22.8	28.3	30.2	29.9	33.5	28.5	30.9
Nat'l Telecomm & Info Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.9	.7	1.7	1.1
Office of Telecommunications	-	-	3.6	1.2	-	.7	.5	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	-	-	-	-	-	-	-	-	.0
Patent and Trademark Office	.1	.2	.6	.6	.2	.3	.2	.5	.5	.5	.5
US Travel & Tourism Admin	-	-	-	.4	-	-	-	-	-	-	-
Department of Defense, total	6,030.5	6,199.8	6,813.6	6,968.1	6,986.0	7,581.5	8,127.2	9,247.5	9,729.6	10,492.1	11,719.2
Department of the Army	1,337.7	1,372.4	1,692.6	1,636.5	1,643.4	1,560.4	1,651.3	2,043.9	2,139.1	2,320.1	2,500.7
Department of the Navy	1,902.0	1,929.7	2,113.0	2,268.4	2,317.2	2,693.7	2,890.1	3,320.0	3,472.1	3,767.7	4,095.0
Department of the Air Force	2,665.4	2,791.6	2,912.0	2,932.6	2,874.6	3,157.7	3,344.3	3,605.3	3,813.6	4,033.4	4,673.7
Defense agencies	125.4	106.0	96.0	105.6	126.6	145.9	217.5	248.0	276.2	341.7	411.9
Test & Evaluation, Deputy under Secretary Defense	N/A	N/A	N/A	25.1	24.2	23.9	24.1	30.2	28.6	29.3	37.9
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of Education, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	72.9	51.8
Department of Energy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2,645.0	3,142.6	3,506.9	3,476.4
Dept of Hlth, Education, & Welfare, total	180.0	244.2	319.1	393.4	443.4	472.6	432.8	409.0	466.5	N/A	N/A
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	-	-	-	2.8	1.0	1.4	N/A	N/A
Centers for Disease Control	N/A	N/A	N/A	.2	-	-	-	-	-	N/A	N/A
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Food & Drug Administration	-	-	-	-	-	-	-	-	-	N/A	N/A
Health Resources Admin	N/A	N/A	-	41.6	46.1	26.6	7.2	-	.5	-	N/A
Health Services Administration	N/A	N/A	N/A	3.0	3.1	6.7	8.0	8.1	7.6	N/A	N/A
Hlth Svcs & Mental Hlth Admin	28.1	43.7	44.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Institute of Education	N/A	N/A	-	90.7	66.2	65.8	52.9	37.8	54.9	N/A	N/A
National Institutes of Health	92.8	125.5	172.0	182.1	247.1	275.7	292.6	311.2	348.3	N/A	N/A
Off of Asst't Secy for Hlth	-	-	-	-	-	-	-	3.6	3.6	N/A	N/A
Office of Child Development	1.0	3.3	5.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Education	55.1	69.6	94.0	51.6	45.1	40.6	36.8	19.2	19.6	N/A	N/A
Off of Human Development Svcs	-	-	-	18.7	35.8	57.3	27.3	28.1	30.7	N/A	N/A
Social & Renabilitation Svc	3.1	2.0	3.8	5.3	-	-	-	N/A	N/A	N/A	N/A
Social Security Administration	-	-	-	-	-	-	5.3	-	-	N/A	N/A

Continued on next page

Table C-153A. Federal obligations for development by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of Hlth & Human Svcs, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	489.2	447.4
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.7	-
Health Resources & Svc's Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	18.5	18.7
Human Development Services	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	42.2	30.1
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	423.0	394.4
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4.7	4.2
Office of the Secretary	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	-
Dept of Housing & Urban Dev	22.8	37.2	36.4	39.5	31.0	28.5	30.6	19.4	39.2	44.1	36.4
Dept of the Interior, total	36.2	54.7	71.4	83.6	48.9	69.3	73.7	58.7	75.5	66.3	56.8
Bonneville Power Admin 4/	1.3	1.6	2.2	2.5	2.0	5.5	6.5	N/A	N/A	N/A	N/A
Bureau of Land Management	.0	.0	.0	.0	.0	.0	.1	.1	.2	.2	.3
Bureau of Mines	12.6	21.6	30.2	36.1	35.6	54.7	58.0	49.6	57.0	41.9	30.6
Bureau of Reclamation	.1	.1	.2	.3	.5	.5	.4	.6	.6	.8	1.2
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Geological Survey	-	-	-	3.7	-	-	-	-	-	.5	.5
National Park Service	-	-	-	-	-	-	-	.3	-	-	-
Office of Coal Research	3.3	11.4	16.0	20.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of the Secretary	-	-	1.1	17.2	.1	.4	-	-	-	-	-
Office of Water Rsch & Tech	17.0	17.9	19.2	-	7.4	4.0	5.1	2.8	12.0	9.4	10.9
US Fish & Wildlife Service	2.0	2.1	2.4	3.0	3.3	4.1	3.7	5.4	5.7	13.5	13.4
Department of Justice, total	3.3	3.8	11.0	26.2	16.1	25.4	15.5	10.1	15.2	14.1	12.7
Drug Enforcement Admin	-	-	-	-	3.3	.6	2.0	2.1	1.4	1.7	1.9
Fed Bureau of Investigation	.2	1.0	.7	.7	1.9	1.2	1.2	1.4	1.8	3.1	1.4
Federal Prison System	.2	.4	.5	.5	.5	.6	.8	1.0	2.9	2.9	1.3
Immigration & Naturalization Svc	-	-	-	-	-	.0	-	.1	.2	.1	.2
Office of Justice Programs	2.9	2.5	9.8	24.9	10.4	23.0	11.5	5.4	8.3	6.3	7.5
Office of Legal Policy	-	-	-	-	-	-	-	-	.6	.0	.5
Department of Labor, total	9.3	9.2	9.9	6.6	6.6	10.1	10.5	10.8	72.1	94.9	101.6
Bureau of Labor Statistics	1.2	.9	2.3	.2	1.0	1.1	.5	.5	.5	-	-
Employment Standards Admin	-	-	-	-	-	-	-	-	-	-	-
Employment & Training Admin	8.1	8.3	7.4	5.9	4.5	8.3	10.0	10.4	71.7	94.9	101.6
Occupational Safety & Hlth Administration	N/A	-	.2	.5	.9	.7	-	-	-	-	-
Office of the Secretary	N/A	.0	.0	.0	.2	-	-	-	-	-	-
Pension Benefit Guarantee Corporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Post Office Department	34.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Department of State, total	8.7	1.1	.9	1.6	4.7	5.4	14.2	23.1	36.1	.5	.3
Agency for Internat'l Dev 5/	8.7	1.1	.9	.9	4.3	4.9	13.8	22.9	35.7	N/A	N/A
Departmental funds	-	-	-	.7	.4	.5	.5	.2	.4	.5	.3
Peace Corps	.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dept of Transportation, total	244.5	400.2	212.3	233.4	308.0	257.7	263.4	302.8	341.8	303.1	278.8
Coast Guard	14.3	16.8	25.3	22.4	14.8	11.6	9.8	16.4	21.4	10.2	9.9
Federal Aviation Admin	46.1	329.0	78.7	61.6	111.1	91.5	94.5	98.7	103.7	103.0	94.9
Federal Highway Administration	4.2	2.9	.4	21.7	37.6	41.3	27.0	50.2	46.8	48.5	46.5
Federal Railroad Admin	2.0	3.7	17.0	20.2	31.9	29.7	41.8	35.3	44.7	36.7	38.3
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nat'l Highway Traffic Safety Administration	3.6	12.0	29.3	32.9	38.7	22.0	21.5	19.5	28.3	26.6	24.9
Office of the Secretary	160.5	6.6	10.7	14.6	14.6	16.9	21.9	23.8	27.6	11.1	10.2
Rsch & Special Programs Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	.8	10.0	8.5
Urban Mass Trans Admin	13.8	29.3	51.0	60.0	59.3	44.8	46.9	58.9	68.5	56.9	45.5

Continued on next page

Table C-153A. Federal obligations for development by selected agency: fiscal years 1970-80--Continued

[Dollars in millions]

Selected agency	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Dept of the Treasury, total	0.3	0.4	0.8	0.6	0.7	1.3	2.3	2.7	5.8	4.8	6.3
Bureau of Alcohol, Tobacco, & Firearms	N/A	N/A	-	-	-	-	-	.7	1.6	1.9	1.2
Bureau of Engraving & Printing	.3	.4	.8	.6	.7	1.3	1.3	.8	1.8	1.5	1.0
Internal Revenue Service	-	-	-	-	-	-	-	-	.6	.1	.1
Office of Protective Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	.4
United States Customs Service	-	-	-	-	-	-	1.0	1.2	1.8	1.3	3.7
United States Mint	-	-	-	-	-	-	-	-	-	-	-
Department of Veterans Affairs	.9	.8	2.0	4.5	6.1	7.7	12.6	14.7	14.6	15.6	15.5
Other agencies											
Action	N/A	-	-	-	.1	-	-	.4	1.4	1.6	-
Agency for International Dev 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-	39.6	69.7
Appalachian Regional Commission	-	-	-	-	-	-	-	.1	.1	.2	.2
Atomic Energy Commission	912.9	873.9	880.5	938.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Civil Service Commission	.2	.2	.6	1.9	1.8	2.9	2.9	2.8	N/A	N/A	N/A
Community Services Admin	N/A	N/A	N/A	N/A	21.3	22.9	10.2	23.0	22.3	18.9	29.1
Consumer Product Safety Comm	N/A	N/A	-	.1	1.6	3.0	2.1	3.0	2.9	2.1	1.9
Energy Rsch & Development Admin	N/A	N/A	N/A	N/A	1,024.2	1,453.9	1,717.3	N/A	N/A	N/A	N/A
Environmental Protection Agency	35.5	82.9	71.3	106.3	72.9	115.9	103.7	90.2	132.0	151.1	99.9
Fed Emergency Management Agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.2	2.9	2.5
Federal Energy Administration	N/A	N/A	N/A	N/A	-	1.1	1.9	N/A	N/A	N/A	N/A
General Services Admin	.1	.1	.1	.2	.4	.9	.7	.5	.5	.3	.1
Library of Congress	1.0	1.5	1.2	1.2	1.8	2.2	2.5	3.4	4.4	5.3	6.3
Nat'l Aeronautics & Space Admin	2,769.7	2,335.2	2,392.6	2,267.0	2,156.5	2,129.3	2,224.0	1,964.7	1,988.1	2,127.2	1,624.4
National Archives	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
National Science Foundation	14.2	18.7	27.6	15.9	36.2	25.0	13.5	8.7	5.3	7.9	8.1
Office of Economic Opportunity	94.0	70.8	37.4	55.5	-	-	N/A	N/A	N/A	N/A	N/A
Office of Personnel Management	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3.5	4.6	4.2
Office of Science and Technology	.9	1.0	1.0	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Office of Telecomm Policy	N/A	-	-	-	-	1.7	2.7	-	-	N/A	N/A
Postal Service	N/A	38.7	-	-	-	-	-	-	-	-	-
Tennessee Valley Authority	1.8	1.8	1.8	1.8	1.6	1.9	2.2	3.6	18.0	21.9	64.3
US Arms Control & Disarmament Agency	.5	.4	.4	.2	.0	.0	.0	.4	1.2	.8	.8
US Information Agency 6/	.1	.0	.0	.0	.0	-	.0	.0	.0	.0	.0

N/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Fiscal year 1979 was the first year in which Congress appropriated funds to Agriculture Marketing Service. Data reported for the Agricultural Marketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

2/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

4/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

5/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

6/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-153B. Federal obligations for development by selected agency: fiscal years 1981-91

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total, all agencies	20,891.1	23,410.4	24,458.0	27,246.1	32,226.1	34,910.2	37,312.7	38,118.8	40,640.4	40,637.3	42,887.6
Department of Agriculture, total	33.0	30.8	30.0	31.3	32.0	32.1	29.0	31.4	36.1	38.3	40.7
Agricultural Marketing Svc 1/	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3
Agricultural Research Svc 2/	26.2	25.8	25.5	27.0	27.7	27.4	24.0	26.3	31.4	32.8	35.3
Econ, Stat & Coop Svc 3/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Federal Grain Inspection Svc	N/A	N/A	N/A	N/A	.2	.3	.5	.4	.3	.5	.5
Forest Service	6.2	4.5	3.8	3.3	3.3	3.6	3.8	4.0	3.9	4.6	4.5
Off of Internat'l Cooperation & Dev	.3	.2	.4	.7	.4	.3	.3	.2	.1	.1	.1
Office of Transportation 1/	.1	.1	.1	.1	.2	.1	.1	.1	-	-	-
Nat'l Agricultural Stat svc	-	-	-	-	-	-	-	-	-	-	-
Department of Commerce, total	78.6	60.2	50.2	61.5	74.6	59.7	63.7	46.6	46.9	56.5	63.6
Bureau of the Census	.9	1.9	2.1	2.1	2.4	2.1	1.9	1.9	2.0	2.1	1.9
Economic Development Admin	26.3	8.0	-	-	11.0	8.0	-	-	-	-	-
Environmental Science Svcs Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Maritime Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Minority Business Dev Agency	-	-	-	-	-	-	-	-	-	-	-
Nat'l Inst of Standards & Tech	16.3	14.9	13.6	11.8	14.0	11.6	9.3	9.1	10.0	16.8	22.0
Nat'l Fire Prevention & Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Nat'l Oceanic & Atmospheric Administration	32.9	33.5	33.1	46.6	45.4	37.2	51.7	34.8	34.1	36.7	38.8
Nat'l Telecomm & Info Admin	1.1	1.2	1.4	.9	1.2	.8	.8	.8	.9	.9	.9
Office of Telecommunications	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of the Secretary	-	-	.0	.1	.6	-	-	-	-	-	-
Patent and Trademark Office	1.1	.7	-	-	-	-	-	-	-	-	-
US Travel & Tourism Admin	-	-	-	-	-	-	-	-	-	-	-
Department of Defense, total	13,907.7	17,669.8	19,770.1	22,324.3	26,623.2	29,710.7	31,884.0	32,009.7	33,920.8	32,664.2	33,448.5
Department of the Army	2,707.7	3,121.3	3,304.5	3,516.8	3,747.4	3,982.1	4,109.6	4,052.3	4,835.9	4,873.3	5,432.6
Department of the Navy	4,308.0	5,066.4	5,241.2	6,040.2	8,336.1	8,865.9	8,721.1	8,766.2	8,882.9	8,810.2	8,493.9
Department of the Air Force	6,351.9	8,724.0	10,124.2	11,351.5	12,524.3	12,834.8	14,562.9	14,094.2	14,430.0	13,013.0	12,901.4
Defense agencies	499.1	717.1	1,038.7	557.3	1,964.8	3,910.7	4,353.5	4,868.4	5,616.8	5,713.1	6,318.8
Test & Evaluation, Deputy under Secretary Defense	41.1	41.0	61.6	58.6	50.6	117.1	128.5	160.3	140.7	184.2	322.6
Director, Operational Test and Evaluation	N/A	N/A	N/A	N/A	N/A	-	8.4	68.2	14.4	70.5	79.1
Department of Education, total	51.1	57.5	35.6	34.8	33.0	25.5	25.6	29.7	37.2	47.9	32.8
Department of Energy	3,504.6	3,012.1	2,575.6	2,648.7	2,825.0	2,648.0	2,659.4	2,801.0	2,760.9	3,057.3	3,265.0
Dept of Hlth, Education, & Welfare, total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Alcohol, Drug Abuse & Mental Health Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Centers for Disease Control	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Environmental Health Service	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Food & Drug Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Health Resources Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Health Services Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Hlth Svcs & Mental Hlth Admin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Nat'l Institute of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
National Institutes of Health	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Off of Asst't Secy for Hlth	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of Child Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of Education	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Off of Human Development Svcs	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Social & Rehabilitation Svc	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Social Security Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-

Continued on next page

Table C-1538. Federal obligations for development by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of Hlth & Human Svcs, total	434.9	335.2	331.7	364.7	422.7	468.0	584.3	661.1	814.4	880.4	910.9
Alcohol, Drug Abuse & Mental Health Administration	1.8	2.1	1.8	1.2	1.1	1.2	2.2	2.4	3.0	4.3	4.8
Health Resources & Svc's Admin	N/A	3.4	2.3	2.3	1.5	-	-	-	-	-	-
Health Services Administration	10.1	-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Development Services	33.8	18.5	16.6	13.8	18.5	47.8	43.6	46.8	93.2	107.9	112.2
National Institutes of Health	384.9	308.7	311.0	347.0	399.6	417.5	536.2	610.2	716.5	767.0	792.6
Off of Asst't Secy for Hlth	4.3	2.2	-	-	1.7	1.5	2.3	1.6	1.7	1.2	1.2
Office of the Secretary	-	.3	-	.4	.2	-	-	-	-	-	-
Dept of Housing & Urban Dev	31.4	18.5	20.8	11.9	12.0	10.1	10.8	12.1	11.9	13.4	30.7
Dept of the Interior, total	57.3	29.6	24.8	30.7	22.4	17.3	21.7	24.3	27.1	33.9	36.9
Bonneville Power Admin 4/	7.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Bureau of Land Management	.4	2.9	1.9	2.0	1.6	1.3	1.6	1.5	1.0	.7	.7
Bureau of Mines	28.7	13.6	9.2	11.6	3.3	2.8	3.6	5.2	5.4	9.8	6.9
Bureau of Reclamation	.9	1.1	1.2	1.4	2.0	.5	.5	.7	.6	.5	.7
Fed Water Pollution Control Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Geological Survey	.5	.5	2.3	4.9	4.4	7.4	10.3	10.9	12.9	15.1	17.7
National Park Service	-	-	-	-	-	-	-	-	-	-	-
Office of Coal Research	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of the Secretary	-	-	-	-	-	-	-	.3	.4	.5	.7
Off of Surface Mining Reclamation & Enforcement	-	-	-	-	-	-	-	-	-	.0	.0
Office of water Rsch & Tech	5.3	1.3	1.0	-	-	-	-	-	-	-	-
US Fish & Wildlife Service	13.7	10.3	9.2	10.8	11.1	5.3	5.7	5.7	6.7	7.3	10.2
Department of Justice, total	7.0	10.4	10.7	6.6	16.7	14.1	22.5	25.7	20.6	20.6	23.2
Drug Enforcement Admin	.9	1.9	1.6	1.2	1.1	1.7	1.5	1.9	2.2	4.0	4.5
Fed Bureau of Investigation	.7	2.7	2.5	1.0	9.5	7.2	8.0	12.7	7.7	5.8	6.6
Federal Prison System	.9	.7	.4	.4	.4	.3	4.9	3.9	3.0	2.7	2.8
Immigration & Naturalization Svc	.1	.4	.3	.3	.2	.2	.2	-	-	-	-
Office of Justice Programs	4.4	4.6	5.8	3.8	5.5	4.7	7.9	7.1	7.8	8.0	9.3
Office of Legal Policy	.1	.0	.1	-	-	-	-	-	-	-	-
Department of Labor, total	4.0	6.3	1.9	-	.9	.9	1.2	8.9	13.3	14.2	16.4
Bureau of Labor Statistics	-	-	-	-	-	-	-	-	-	-	-
Employment Standards Admin	-	-	-	-	-	-	-	-	-	-	-
Employment & Training Admin	3.6	7.4	1.1	-	-	-	.3	8.0	9.7	10.9	12.5
Occupational Safety & Hlth Administration	-	-	-	-	-	-	-	-	-	-	-
Office of the Secretary	-	-	-	-	.9	.9	.9	.9	3.6	3.2	3.7
Pension Benefit Guarantee Corporation	.4	.8	.8	-	-	-	-	-	-	.2	.2
Post Office Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Department of State, total	.2	-	-	-	-	-	-	-	-	-	-
Agency for Internat'l Dev 5/	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Departmental funds	.2	-	-	-	-	-	-	-	-	-	-
Peace Corps	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Dept of Transportation, total	327.0	243.4	275.1	370.6	357.6	317.3	255.7	212.9	182.3	248.7	260.9
Coast Guard	11.3	18.3	18.4	12.2	13.6	13.4	13.3	15.7	13.3	15.4	16.9
Federal Aviation Admin	111.8	87.3	113.7	251.2	269.0	246.6	156.2	147.3	123.2	186.5	173.7
Federal Highway Administration	46.1	35.0	43.1	40.3	42.6	30.8	55.5	29.9	33.9	31.5	54.1
Federal Railroad Admin	30.4	15.1	13.7	6.9	3.6	2.9	.8	1.8	1.5	2.5	3.1
Maritime Administration	4.7	4.5	8.8	1.3	5.9	2.6	2.5	-	-	-	-
Nat'l Highway Traffic Safety Administration	36.5	34.1	30.6	32.2	7.2	6.3	9.0	9.2	3.5	3.8	4.2
Office of the Secretary	9.4	3.0	4.6	4.0	3.9	4.7	4.1	5.0	4.2	5.3	5.6
Rsch & Special Programs Admin	7.9	4.0	3.6	3.5	2.2	1.7	1.8	1.7	1.3	2.0	1.7
Urban Mass Trans Admin	68.9	42.0	38.6	19.1	9.7	8.2	12.6	2.3	1.4	1.6	1.6

Continued on next page

Table C-153B. Federal obligations for development by selected agency: fiscal years 1981-91--Continued

[Dollars in millions]

Selected agency	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Dept of the Treasury, total	6.1	5.2	5.4	3.3	6.0	6.3	9.5	10.2	9.3	9.3	9.1
Bureau of Alcohol, Tobacco, & Firearms	.2	-	-	-	-	-	-	-	-	-	-
Bureau of Engraving & Printing	1.8	2.0	1.9	1.3	1.6	1.1	1.7	.8	.3	1.9	1.4
Internal Revenue Service	.0	.1	.1	.2	1.3	.2	.4	.7	.3	.3	.3
Office of Protective Research .	.6	-	.0	.1	.5	.0	.3	-	.2	-	-
United States Customs Service .	3.4	3.1	3.3	1.7	2.1	4.6	6.8	8.5	6.4	5.8	7.3
United States Mint	-	-	-	-	.6	.3	.2	.1	2.0	1.2	-
Department of Veterans Affairs ..	16.7	14.3	15.3	18.4	17.5	16.3	19.2	19.2	21.0	22.1	21.2
Other agencies											
Action	-	-	-	-	-	-	-	-	-	-	-
Agency for International Dev 5/..	47.8	72.0	70.6	70.3	60.5	66.2	63.5	69.3	60.0	44.7	52.7
Appalachian Regional Commission .	.1	.1	-	.1	-	-	-	-	-	-	-
Atomic Energy Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Civil Service Commission	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Community Services Admin	16.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Consumer Product Safety Comm	.9	.1	.2	.2	1.0	.9	1.6	.9	.8	.7	.4
Energy Rsch & Development Admin .	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Environmental Protection Agency .	107.4	91.7	66.1	89.2	105.8	99.5	71.0	79.5	107.0	100.7	79.7
Fed Emergency Management Agency .	2.5	-	-	5.4	1.2	N/A	N/A	N/A	N/A	N/A	-
Federal Energy Administration ...	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
General Services Admin	.2	.5	.3	2.0	-	.3	-	-	-	-	-
Library of Congress	4.0	4.9	6.0	5.4	5.0	5.0	5.0	5.5	6.4	6.6	7.7
Nat'l Aeronautics & Space Admin .	2,186.0	1,670.7	1,116.8	1,112.7	1,543.6	1,350.8	1,517.8	1,998.8	2,514.7	3,340.2	4,548.9
National Archives	N/A	N/A	N/A	N/A	.3	1.0	.4	.2	.1	.1	.1
National Science Foundation	6.1	2.2	-	-	-	-	-	-	-	-	-
Office of Economic Opportunity ..	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of Personnel Management ..	5.0	-	-	-	-	-	-	-	-	-	-
Office of Science and Technology	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Office of Telecomm Policy	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-
Postal Service	-	-	-	-	-	-	-	-	-	-	-
Tennessee Valley Authority	54.7	72.3	50.7	53.8	65.1	59.8	60.2	68.8	48.0	37.4	38.1
US Arms Control & Disarmament Agency	.8	.6	.1	.2	-	.1	3.2	2.6	1.6	-	-
US Information Agency 6/.....	.3	.1	-	-	-	.4	3.5	.3	.1	-	-

H/A (not applicable) indicates that the agency or agency subdivision did not exist as such or in that organization in that year.

1/ Fiscal year 1979 was the first year in which Congress appropriated funds to Agriculture Marketing Service. Data reported for the Agricultural Marketing Service for fiscal years 1989-91 include funds for the Office of Transportation.

2/ Includes the former Agriculture Research Service of the Science and Education Administration for fiscal years 1978-80.

3/ Includes programs of the Economic Research Service, the Statistical Reporting Service, and the Farmer Cooperative Service for fiscal years 1977-79.

4/ In fiscal year 1982 the Bonneville Power Administration became part of the Department of Energy.

5/ Includes programs of the International Development Cooperation Agency for fiscal years 1979-81.

6/ Includes the former International Communication Agency for fiscal years 1977-81.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-154A. Federal obligations for research and development, by performer: fiscal years 1970-80

[Dollars in millions]

Performer	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total	15,338.9	15,542.5	16,495.9	16,800.2	17,410.1	19,038.8	20,779.7	23,450.4	25,845.1	28,145.1	29,830.4
Federal intramural 1/	4,079.3	4,228.3	4,589.2	4,762.2	4,910.9	5,354.0	5,768.7	6,011.7	6,810.4	7,417.5	7,632.3
Industrial firms excl FFRDCs	7,770.1	7,587.5	7,716.0	7,731.3	7,752.3	8,423.2	9,340.3	10,717.2	11,400.0	12,172.4	12,969.1
FFRDCs admin by indust firms	430.7	480.2	529.9	582.4	592.8	703.7	813.8	1,112.7	1,242.5	1,318.1	1,408.1
Univ & col excluding FFRDCs	1,475.6	1,644.6	1,903.5	1,916.6	2,214.0	2,411.4	2,551.8	2,905.5	3,374.6	3,888.8	4,263.4
FFRDCs administered by univ	751.1	728.9	760.6	725.3	789.1	935.1	1,061.1	1,313.1	1,311.9	1,488.3	1,533.3
Nonprofit inst excluding FFRDCs	444.9	458.8	514.9	578.2	672.2	702.3	708.6	800.0	998.2	1,026.5	1,105.6
FFRDCs admin by nonprofit inst	247.4	210.2	215.4	183.1	199.3	219.9	231.0	263.9	315.9	368.7	441.8
State and local governments	99.6	141.1	206.7	256.8	214.4	227.6	231.2	238.0	268.4	310.1	265.5
Foreign	40.2	63.1	59.6	64.4	65.1	61.6	73.1	88.2	123.2	154.7	211.2

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-154B. Federal obligations for research and development, by performer: fiscal years 1981-91

[Dollars in millions]

Performer	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total	33,103.9	36,432.6	38,711.5	42,224.9	48,359.6	51,412.4	55,253.1	56,768.8	61,405.8	62,320.1	66,107.3
Federal intramural 1/	8,425.7	9,141.0	10,581.9	11,572.3	12,945.4	13,534.9	13,413.1	14,114.6	15,120.9	16,094.1	16,396.3
Industrial firms excl FFRDCs	14,867.9	17,192.2	17,019.7	18,610.4	21,704.9	24,201.2	26,768.2	26,719.2	28,547.9	28,853.9	31,511.5
FFRDCs admin by indust firms	1,413.9	1,506.4	1,501.2	1,608.4	1,790.8	1,697.0	1,860.0	1,911.3	1,960.0	2,053.6	2,062.3
Univ & col excluding FFRDCs	4,465.8	4,605.5	4,966.4	5,540.9	6,339.7	6,558.8	7,337.3	7,827.7	8,672.0	8,747.9	9,190.8
FFRDCs administered by univ	1,791.0	1,976.7	2,393.9	2,485.8	2,816.4	2,767.7	3,209.6	3,473.9	3,497.1	3,410.3	3,653.8
Nonprofit inst excluding FFRDCs	1,068.8	1,091.7	1,241.6	1,497.3	1,699.2	1,677.0	1,710.8	1,682.6	1,999.1	2,183.6	2,301.7
FFRDCs admin by nonprofit inst	525.2	520.6	581.3	597.1	689.2	551.2	510.6	505.6	522.0	444.7	482.2
State and local governments	222.2	184.3	186.0	130.9	129.4	128.4	148.2	142.1	167.4	174.5	184.1
Foreign	323.4	214.3	239.5	175.8	244.5	296.3	295.3	391.8	919.4	357.4	324.7

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: In 1984 the Center for Naval Analyses was reclassified from an FFRDC administered by a university to an FFRDC administered by a nonprofit institution.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-155A. Federal obligations for research by performer: fiscal years 1970-80

[Dollars in millions]

Performer	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total	4,900.8	5,123.2	5,547.7	5,581.4	6,175.2	6,729.7	7,619.3	8,514.1	9,606.8	10,535.0	11,597.4
Federal intramural 1/	1,903.9	1,887.9	1,984.4	2,088.5	2,270.2	2,463.8	2,879.2	2,957.7	3,220.8	3,481.2	3,666.3
Industrial firms excl FFRDCs	876.5	889.0	906.6	887.3	874.6	1,010.2	1,103.0	1,367.3	1,651.4	1,762.0	2,077.6
FFRDCs admin by indust firms	72.5	75.7	75.3	68.7	98.2	135.7	176.5	192.2	235.2	245.0	311.0
Univ & col excluding FFRDCs	1,276.4	1,430.2	1,642.8	1,691.1	1,958.3	2,078.8	2,249.7	2,583.5	2,928.0	3,333.4	3,699.1
FFRDCs administered by univ	382.6	358.9	398.4	355.2	374.0	425.5	548.3	670.3	714.9	800.6	851.2
Nonprofit inst excluding FFRDCs	230.5	282.0	342.0	316.2	414.2	394.7	435.4	512.2	590.9	622.6	678.4
FFRDCs admin by nonprofit inst	45.1	52.0	59.9	50.2	50.8	64.8	57.5	55.6	66.9	73.4	71.7
State and local governments	83.4	95.8	93.8	84.3	91.0	111.9	119.4	115.2	128.8	139.5	150.9
Foreign	29.9	51.6	44.5	40.0	44.0	44.3	50.4	60.3	69.9	77.4	91.1

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-155B. Federal obligations for research by performer: fiscal years 1981-91

[Dollars in millions]

Performer	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total	12,212.8	13,022.2	14,253.5	14,978.8	16,133.4	16,502.2	17,940.4	18,650.0	20,765.3	21,682.8	23,219.7
Federal intramural 1/	4,034.2	4,194.2	4,710.3	4,764.7	5,056.1	5,160.3	5,437.7	5,338.4	5,981.5	6,337.8	6,866.6
Industrial firms excl FFRDCs	1,958.3	2,156.6	2,114.2	2,137.4	2,074.4	2,280.5	2,448.6	2,642.5	2,875.0	3,161.9	3,427.3
FFRDCs admin by indust firms	351.3	487.3	522.6	496.5	485.9	482.1	433.5	455.2	519.8	519.2	505.1
Univ & col excluding FFRDCs	3,920.1	4,045.4	4,467.9	5,029.7	5,726.3	5,883.4	6,640.2	7,022.8	7,733.1	7,872.8	8,356.1
FFRDCs administered by univ	940.6	1,056.7	1,250.1	1,335.9	1,421.3	1,291.7	1,471.0	1,564.8	1,788.4	1,732.9	1,863.2
Nonprofit inst excluding FFRDCs	705.2	743.5	836.9	922.6	1,040.1	1,062.9	1,207.3	1,299.8	1,510.7	1,685.1	1,796.9
FFRDCs admin by nonprofit inst	67.7	104.2	85.2	87.3	97.0	87.9	89.8	82.9	109.5	121.7	137.3
State and local governments	129.3	125.9	136.7	88.2	89.5	91.0	90.2	103.1	121.2	127.0	125.3
Foreign	106.0	108.3	129.6	116.5	137.9	162.4	121.9	140.4	142.1	124.2	141.9

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: In 1984 the Center for Naval Analyses was reclassified from an FFRDC administered by a university to an FFRDC administered by a nonprofit institution.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-156A. Federal obligations for basic research by performer: fiscal years 1970-80

[Dollars in millions]

Performer	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total	1,925.9	1,980.1	2,186.9	2,232.0	2,387.7	2,588.4	2,767.5	3,258.6	3,698.6	4,192.7	4,674.2
Federal Intramural 1/	558.4	565.4	596.9	608.1	695.9	733.5	786.0	914.1	1,029.3	1,089.1	1,182.5
Industrial firms excl FFRDCs	185.0	166.6	151.4	176.1	124.0	118.5	131.1	208.1	247.7	277.1	325.3
FFRDC's admin by indust firms	29.7	29.2	32.2	39.4	31.5	47.9	59.8	53.1	65.4	66.6	70.4
Univ & col excluding FFRDCs	808.1	879.4	1,021.4	1,048.2	1,144.7	1,260.6	1,341.7	1,555.1	1,759.2	2,079.9	2,320.3
FFRDCs administered by univ	237.0	227.7	254.5	229.0	223.1	257.5	284.9	324.1	356.8	393.6	436.8
Nonprofit inst excluding FFRDCs	80.1	85.2	96.4	98.5	127.1	128.2	126.5	162.5	192.8	240.3	279.5
FFRDCs admin by nonprofit inst	3.5	2.2	7.2	3.4	6.2	13.8	7.9	5.6	5.8	6.7	7.5
State and local governments	13.9	16.6	15.6	16.2	16.8	14.0	12.9	15.6	17.1	19.8	23.9
Foreign	10.1	7.9	11.2	13.1	18.3	14.3	16.6	20.4	24.6	19.5	28.1

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-156B. Federal obligations for basic research by performer: fiscal years 1981-91

[Dollars in millions]

Performer	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total	5,041.3	5,481.6	6,260.1	7,067.4	7,818.7	8,153.1	8,942.4	9,473.6	10,602.0	11,347.6	12,254.6
Federal Intramural 1/	1,301.8	1,465.5	1,689.8	1,861.1	1,923.4	2,018.9	2,046.2	2,050.3	2,370.7	2,573.0	2,782.3
Industrial firms excl FFRDCs	292.9	270.9	292.9	377.9	380.1	511.6	467.0	596.9	777.2	958.8	1,042.9
FFRDC's admin by indust firms	73.3	87.4	83.0	91.1	122.6	117.6	119.9	133.0	146.7	176.5	193.9
Univ & col excluding FFRDCs	2,503.2	2,727.1	3,112.3	3,530.8	4,038.7	4,132.1	4,665.6	4,868.3	5,221.4	5,376.7	5,720.8
FFRDCs administered by univ	490.6	516.7	604.0	668.9	724.2	724.1	906.7	989.8	1,098.1	1,146.2	1,266.9
Nonprofit inst excluding FFRDCs	313.1	355.6	409.6	473.6	555.8	572.1	657.7	728.6	838.9	962.9	1,077.2
FFRDCs admin by nonprofit inst	8.6	9.0	8.0	8.2	12.4	13.0	13.3	17.7	42.2	55.4	67.6
State and local governments	26.5	24.5	32.1	28.1	30.5	30.9	37.5	42.7	43.6	48.5	51.4
Foreign	31.2	24.9	28.5	27.7	30.9	32.7	28.5	46.3	47.4	49.6	51.6

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: In 1984 the Center for Naval Analyses was reclassified from an FFRDC administered by a university to an FFRDC administered by a nonprofit institution.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-157A. Federal obligations for applied research by performer: fiscal years 1970-80

[Dollars in millions]

Performer	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total	2,974.9	3,143.0	3,360.8	3,349.4	3,787.6	4,141.3	4,851.9	5,255.5	5,908.2	6,342.3	6,923.2
Federal intramural 1/	1,345.5	1,322.5	1,387.5	1,480.4	1,574.3	1,730.3	2,093.1	2,043.6	2,191.5	2,392.1	2,483.8
Industrial firms excl FFRDCs	691.5	722.4	755.2	711.2	750.7	891.7	971.9	1,159.1	1,403.7	1,484.9	1,752.3
FFRDCs admin by indust firms	42.8	46.4	43.1	29.3	66.7	87.8	116.7	139.1	169.8	178.3	240.7
Univ & col excluding FFRDCs	468.4	550.8	621.4	642.9	813.5	818.2	908.0	1,028.4	1,168.8	1,253.5	1,378.8
FFRDCs administered by univ	145.6	131.2	144.0	126.2	150.9	168.0	263.4	346.2	358.1	407.0	414.3
Nonprofit inst excluding FFRDCs	150.3	196.9	245.5	217.7	287.1	266.4	308.9	349.6	398.1	382.3	398.9
FFRDCs admin by nonprofit inst	41.6	49.8	52.6	46.8	44.6	51.0	49.6	49.9	61.2	66.7	64.2
State and local governments	69.5	79.2	78.2	68.1	74.2	97.9	106.5	99.6	111.8	119.7	127.1
Foreign	19.8	43.7	33.3	26.9	25.7	30.0	33.8	39.9	45.3	57.9	63.0

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-157B. Federal obligations for applied research by performer: fiscal years 1981-91

[Dollars in millions]

Performer	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total	7,171.5	7,540.6	7,993.4	7,911.4	8,314.7	8,349.1	8,997.9	9,176.4	10,163.3	10,335.2	10,965.2
Federal intramural 1/	2,732.4	2,728.7	3,020.4	2,903.6	3,132.7	3,141.5	3,391.5	3,288.1	3,610.8	3,764.7	4,084.3
Industrial firms excl FFRDCs	1,665.4	1,885.7	1,821.3	1,759.5	1,694.3	1,768.8	1,981.6	2,045.6	2,101.8	2,203.1	2,384.4
FFRDCs admin by indust firms	278.1	400.0	439.7	405.4	363.3	364.5	313.6	322.2	353.2	342.8	311.2
Univ & col excluding FFRDCs	1,416.9	1,318.3	1,355.6	1,498.9	1,687.6	1,751.4	1,974.6	2,154.6	2,571.8	2,496.1	2,635.3
FFRDCs administered by univ	450.0	540.0	646.1	667.0	697.1	567.6	564.3	575.0	605.4	586.8	596.3
Nonprofit inst excluding FFRDCs	392.1	387.9	427.3	449.0	489.3	490.8	549.6	571.2	680.8	722.2	719.8
FFRDCs admin by nonprofit inst	59.1	95.2	77.1	79.1	84.6	74.9	76.5	65.2	67.3	66.3	69.7
State and local governments	102.8	101.4	104.7	60.0	58.9	60.0	52.7	60.4	77.6	78.5	73.9
Foreign	74.8	83.4	101.1	88.8	107.0	129.7	93.4	94.1	94.6	74.6	90.3

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: In 1984 the Center for Naval Analyses was reclassified from an FFRDC administered by a university to an FFRDC administered by a nonprofit institution.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-158A. Federal obligations for development by performer: fiscal years 1970-80

[Dollars in millions]

Performer	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total	10,438.1	10,419.3	10,948.2	11,218.7	11,234.9	12,309.1	13,160.3	14,936.3	16,238.4	17,610.1	18,233.1
Federal intramural 1/	2,175.4	2,340.4	2,604.8	2,673.7	2,640.7	2,890.2	2,889.6	3,054.0	3,589.7	3,936.3	3,966.1
Industrial firms excl FFRDCs	6,893.7	6,698.5	6,809.5	6,844.0	6,877.7	7,413.0	8,237.3	9,350.0	9,748.6	10,410.5	10,891.5
FFRDCs admin by indust firms	358.2	404.5	454.6	513.6	494.6	568.0	637.3	920.6	1,007.3	1,073.1	1,097.0
Univ & col excluding FFRDCs	199.1	214.4	260.7	225.5	255.7	332.7	302.1	322.0	446.6	555.5	564.4
FFRDCs administered by univ	368.6	370.0	362.1	370.1	415.2	509.6	512.8	642.8	597.1	687.7	682.2
Nonprofit inst excluding FFRDCs	214.4	176.8	172.9	262.0	258.1	307.7	273.1	287.9	407.3	403.8	427.1
FFRDCs admin by nonprofit inst	202.3	158.2	155.6	132.8	148.6	155.1	173.5	208.3	249.0	295.4	370.1
State and local governments	16.2	45.2	112.9	172.6	123.3	115.7	111.8	122.9	139.6	170.7	114.6
Foreign	10.3	11.4	15.1	24.4	21.0	17.3	22.7	27.9	53.2	77.3	120.1

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-158B. Federal obligations for development by performer: fiscal years 1980-91

[Dollars in millions]

Performer	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates	
										1990	1991
Total	20,891.1	23,410.4	24,458.0	27,246.1	32,226.1	34,910.2	37,312.7	38,118.8	40,640.4	40,637.3	42,887.6
Federal intramural 1/	4,391.5	4,946.8	5,871.7	6,807.6	7,889.3	8,374.6	7,975.3	8,776.2	9,139.5	9,756.3	9,529.7
Industrial firms excl FFRDCs	12,909.6	15,035.6	14,905.5	16,472.9	19,630.5	21,920.7	24,319.6	24,076.7	25,672.9	25,692.0	28,084.1
FFRDCs admin by indust firms	1,062.6	1,019.1	978.5	1,112.0	1,304.9	1,215.0	1,426.4	1,456.1	1,440.2	1,534.3	1,557.2
Univ & col excluding FFRDCs	545.6	560.0	498.5	517.2	613.5	675.4	697.0	804.8	878.8	875.0	834.8
FFRDCs administered by univ	850.4	920.0	1,143.8	1,149.9	1,395.1	1,476.0	1,738.6	1,909.1	1,793.6	1,677.4	1,790.6
Nonprofit inst excluding FFRDCs	363.6	348.1	404.7	574.6	654.1	614.1	503.4	382.8	479.5	498.5	504.8
FFRDCs admin by nonprofit inst	457.5	416.4	496.1	509.8	592.2	463.3	420.8	422.7	412.4	323.0	344.8
State and local governments	92.9	58.4	49.3	42.0	39.9	37.4	58.0	39.0	46.3	47.5	58.8
Foreign	217.5	106.0	109.9	59.2	106.7	133.9	173.4	251.5	777.3	233.2	182.8

1/ Federal intramural activities cover costs associated with the administration of intramural and extramural programs by Federal personnel as well as actual intramural performance.

NOTE: In 1984 the Center for Naval Analyses was reclassified from an FFRDC administered by a university to an FFRDC administered by a nonprofit institution.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-159A. Federal obligations for total research, by detailed field of science/engineering: fiscal years 1970-80

[Dollars in millions]

Field of science/engineering	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all fields	4,900.8	5,123.2	5,547.7	5,581.4	6,175.2	6,729.7	7,619.3	8,514.1	9,606.8	10,535.0	11,597.4
Life Sciences, total	1,439.8	1,587.8	1,849.0	1,931.1	2,265.1	2,455.2	2,649.7	3,007.7	3,427.1	3,848.3	4,192.3
Biol & agricultural, total	865.6	942.8	1,079.7	1,123.2	1,316.2	1,452.2	1,535.8	1,777.6	2,024.0	2,320.3	2,507.6
Biol (excl environmental)	-	-	-	-	-	-	-	-	1,488.5	1,702.2	1,830.6
Environmental biology	-	-	-	-	-	-	-	-	184.9	216.6	229.7
Agricultural	-	-	-	-	-	-	-	-	350.7	401.5	447.2
Medical sciences, total	542.8	596.7	713.2	758.6	910.8	951.1	1,042.9	1,138.8	1,287.4	1,380.6	1,536.9
Clinical medical	374.3	391.0	464.2	494.2	565.7	550.6	586.7	634.4	-	-	-
Other medical	168.5	205.7	249.0	264.3	345.2	400.5	456.3	504.4	-	-	-
Life sciences, n.e.c.	31.4	48.2	56.1	49.3	38.1	51.9	71.0	91.4	115.7	147.3	147.9
Psychology, total	107.6	108.0	116.3	109.9	133.4	139.2	144.0	156.2	176.7	197.4	199.0
Biological aspects	32.3	31.3	36.9	32.4	49.3	37.4	43.8	57.6	53.4	56.8	59.9
Social aspects	53.5	54.1	50.7	47.7	52.0	57.1	54.9	54.5	65.4	83.6	94.8
Psychological sciences, n.e.c.	21.8	22.6	28.7	29.8	32.1	44.7	45.3	44.1	57.9	57.0	44.3
Physical sciences, total	946.2	905.4	1,020.3	981.7	1,016.1	1,096.6	1,258.9	1,530.2	1,645.6	1,792.6	2,000.6
Astronomy	136.5	126.9	136.4	123.1	136.0	168.3	163.1	197.3	213.6	284.4	285.7
Chemistry	227.5	205.5	246.8	262.5	280.4	289.0	328.4	370.7	405.0	443.6	454.5
Physics	554.6	528.8	573.6	543.2	556.6	595.0	709.3	866.3	942.4	1,022.7	1,182.5
Physical sciences, n.e.c.	27.7	44.2	63.5	52.9	43.0	47.8	58.1	95.9	84.6	41.8	77.9
Environmental sciences, total	485.6	534.3	567.6	580.5	636.3	727.3	769.3	906.0	1,024.6	1,101.0	1,261.0
Atmospheric sciences	232.8	259.9	241.3	246.6	288.3	302.2	289.3	318.4	319.2	348.7	409.5
Geological sciences	152.8	156.0	161.1	168.4	157.1	191.7	227.2	269.4	316.4	358.7	401.8
Oceanography	79.8	95.8	116.5	97.9	120.0	143.8	164.0	195.9	223.8	220.5	262.1
Environmental sciences, n.e.c.	20.2	22.6	48.7	67.7	71.0	89.5	88.8	122.3	165.2	173.1	187.6
Math & computer sci, total	94.9	106.6	120.7	114.8	114.3	125.3	157.8	195.9	216.3	210.3	240.9
Mathematics	-	-	-	-	-	-	69.9	96.4	93.4	84.2	90.9
Computer sciences	-	-	-	-	-	-	73.6	89.4	107.3	106.3	128.6
Math & computer sci, n.e.c.	-	-	-	-	-	-	14.3	10.1	15.7	19.9	21.4
Engineering, total	1,539.3	1,486.7	1,450.7	1,370.6	1,563.7	1,719.8	2,068.7	2,112.9	2,421.2	2,571.6	2,830.1
Aeronautical	336.0	290.5	209.5	232.7	336.1	345.1	526.8	408.8	482.9	624.9	708.1
Astronautical	177.8	153.2	65.6	45.9	97.5	99.1	179.4	159.0	165.1	251.1	302.3
Chemical	109.4	105.5	77.1	72.0	61.5	83.9	88.3	104.8	149.4	114.3	96.3
Civil	71.1	76.7	123.3	106.2	103.6	125.6	105.9	117.4	142.4	125.0	158.8
Electrical	283.5	277.9	333.7	297.6	269.2	287.0	297.7	382.7	432.6	417.9	517.1
Mechanical	178.3	189.2	174.7	212.9	131.7	162.3	185.7	199.2	234.1	195.9	208.0
Metallurgy & materials	136.9	157.4	182.1	172.5	190.6	221.8	274.9	293.8	286.0	249.3	236.2
Engineering, n.e.c.	246.7	236.3	284.8	230.8	373.5	392.9	410.0	447.2	528.6	593.2	603.3
Social sciences, total	212.3	304.0	306.9	298.8	292.2	301.8	392.5	426.1	489.5	527.3	523.8
Anthropology	8.5	11.7	13.2	11.8	13.4	13.9	13.6	12.4	19.5	17.3	17.2
Economics	77.7	72.8	81.8	88.1	118.0	126.2	137.6	142.9	163.2	181.9	192.8
Political science	7.8	5.0	4.6	7.1	8.5	11.7	7.2	8.5	8.8	13.9	12.2
Sociology	37.8	105.3	119.4	102.1	64.3	54.9	53.6	52.2	60.3	64.5	71.4
Social sciences, n.e.c.	80.3	109.2	88.0	89.7	88.1	95.1	180.4	210.3	237.6	249.6	230.3
History	4.6	4.2	4.5	4.9	6.2	7.0	-	-	-	-	-
Linguistics	1.7	2.7	3.8	4.2	3.1	3.0	-	-	-	-	-
Other social sciences	73.9	102.3	79.7	80.6	78.7	85.1	-	-	-	-	-
Other sciences, n.e.c.	75.1	90.3	116.2	194.0	154.1	166.6	178.6	179.1	205.8	286.6	349.6

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-159B. Federal o ligations for total rusearch, by detailed field of science/engineering: fiscal years 1981-91

[Dollars in millions]

Field of science/engineering	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates 1990	Estimates 1991
Total, all fields	12,212.8	13,022.2	14,253.5	14,978.8	16,133.4	16,502.2	17,940.4	18,650.0	20,765.3	21,682.8	23,219.7
Life Sciences, total	4,435.6	4,745.5	5,177.9	5,635.9	6,362.5	6,464.3	7,341.4	7,724.5	8,495.1	8,913.6	9,407.0
Biol & agricultural, total	2,711.8	2,811.8	3,064.4	3,325.0	3,755.3	3,861.3	4,358.5	4,573.4	5,020.0	5,274.5	5,623.8
Biol (excl environmental)	1,996.6	2,079.3	2,305.5	2,563.1	2,885.7	2,993.4	3,502.0	3,681.7	3,983.2	4,247.6	4,520.1
Environmental biology	220.3	183.5	193.6	250.0	260.3	264.1	289.6	301.0	367.8	355.5	370.1
Agricultural	494.8	549.0	565.2	512.0	609.3	603.8	566.9	590.7	669.0	671.4	733.6
Medical sciences, total	1,609.9	1,773.0	1,927.5	2,112.8	2,368.5	2,360.4	2,664.8	2,941.0	3,222.5	3,372.3	3,506.4
Clinical medical	-	-	-	-	-	-	-	-	-	-	-
Other medical	-	-	-	-	-	-	-	-	-	-	-
Life sciences, n.e.c.	113.9	160.7	186.1	198.1	238.7	242.6	318.2	210.1	252.6	266.8	276.8
Psychology, total	208.9	218.4	240.9	266.7	327.1	334.0	369.5	389.8	421.7	447.9	509.8
Biological aspects	57.5	59.6	63.2	80.8	91.2	90.1	98.3	105.3	121.8	136.1	146.2
Social aspects	93.5	98.1	104.7	107.8	142.9	143.5	154.5	149.4	149.5	161.2	178.1
Psychological sciences, n.e.c.	57.9	60.7	73.0	78.1	93.1	100.4	116.7	135.2	149.9	150.5	185.5
Physical sciences, total	2,220.5	2,500.4	2,891.4	2,969.0	3,046.0	3,069.1	3,252.6	3,317.3	3,705.2	3,895.0	4,191.5
Astronomy	281.0	275.8	357.4	382.3	414.7	468.2	522.2	470.8	541.9	581.3	600.1
Chemistry	486.9	481.2	520.3	606.4	650.4	662.4	680.3	703.1	782.6	839.0	832.4
Physics	1,345.6	1,610.5	1,854.6	1,836.4	1,816.0	1,805.9	1,853.6	1,975.3	2,190.8	2,287.1	2,479.3
Physical sciences, n.e.c.	107.0	132.9	159.2	143.9	164.8	132.6	196.6	168.1	189.9	187.6	279.7
Environmental sciences, total	1,121.1	1,148.3	1,251.2	1,275.9	1,403.7	1,481.7	1,511.6	1,607.0	1,773.2	2,103.9	2,344.8
Atmospheric sciences	373.4	425.8	460.7	434.1	486.0	521.3	552.9	587.8	588.0	737.3	911.6
Geological sciences	396.1	357.6	333.5	359.0	429.0	443.9	441.7	441.6	542.8	591.7	596.3
Oceanography	261.7	261.3	343.5	363.5	398.5	429.7	427.4	460.4	491.9	525.3	582.7
Environmental sciences, n.e.c.	89.9	103.6	113.5	119.3	90.2	86.8	89.5	117.1	150.5	249.6	254.2
Math & computer sci, total	278.9	350.1	419.4	440.3	574.9	615.4	640.6	642.9	735.4	720.9	792.2
Mathematics	117.7	128.1	133.5	151.0	183.6	184.5	204.5	217.9	236.1	236.0	254.5
Computer sciences	121.5	170.9	214.6	214.5	280.3	302.4	297.8	292.7	364.6	339.1	388.4
Math & computer sci, n.e.c.	39.7	51.0	71.4	74.8	111.0	128.5	138.3	132.3	134.8	145.9	151.3
Engineering, total	3,071.5	3,386.5	3,517.0	3,624.1	3,617.6	3,738.9	3,906.2	3,956.2	4,442.0	4,361.2	4,683.9
Aeronautical	709.6	741.2	820.6	860.4	738.0	775.6	810.4	801.8	986.8	1,064.4	1,075.1
Astronautical	303.9	290.7	321.5	396.8	424.7	526.9	624.6	579.4	677.4	612.7	803.3
Chemical	147.6	95.1	145.0	144.5	254.3	245.8	215.8	258.1	142.2	152.6	162.2
Civil	159.1	201.9	188.5	202.8	216.6	202.9	204.2	214.7	229.6	235.1	250.1
Electrical	556.7	612.2	614.9	630.0	626.8	674.4	786.3	731.1	843.1	699.5	715.9
Mechanical	204.6	201.2	266.4	190.5	267.0	236.5	233.5	240.8	257.4	263.1	288.0
Metallurgy & materials	256.0	309.1	332.5	341.1	439.2	445.0	362.0	456.7	521.0	519.8	599.1
Engineering, n.e.c.	733.9	935.1	727.6	856.0	651.0	631.7	689.3	677.8	784.5	814.0	790.2
Social sciences, total	497.4	385.9	435.3	436.3	460.0	415.5	480.0	485.8	551.0	620.9	6[illegible]0
Anthropology	14.5	14.6	12.8	18.6	18.0	17.6	15.2	14.3	13.9	14.5	16.3
Economics	206.7	157.1	185.6	147.3	159.7	131.3	148.5	159.5	166.8	180.2	187.0
Political science	10.8	7.5	11.1	10.8	14.6	11.6	11.3	12.2	13.5	12.8	12.6
Sociology	65.0	52.0	67.8	70.2	66.5	67.0	74.0	81.8	94.1	122.5	153.9
Social sciences, n.e.c.	200.4	154.7	178.0	189.5	201.3	192.0	231.0	218.0	262.8	290.8	276.1
History	-	-	-	-	-	-	-	-	-	-	-
Linguistics	-	-	-	-	-	-	-	-	-	-	-
Other social sciences	-	-	-	-	-	-	-	-	-	-	-
Other sciences, n.e.c.	378.8	287.0	320.4	330.5	341.6	383.3	438.3	526.5	641.6	619.5	644.6

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-160A. Federal obligations for basic research, by detailed field of science/engineering: fiscal years 1970-80

[Dollars in millions]

Field of science/engineering	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all fields	1,925.9	1,980.1	2,186.9	2,232.0	2,387.7	2,588.4	2,767.5	3,258.6	3,698.6	4,192.7	4,674.2
Life Sciences, total	696.9	747.5	867.7	888.4	1,032.2	1,115.9	1,222.0	1,383.4	1,588.4	1,891.8	2,054.4
Biol & agricultural, total	485.0	519.0	596.8	608.6	691.9	747.0	818.4	933.6	1,078.7	1,279.3	1,339.4
Biol (excl environmental)	-	-	-	-	-	-	-	-	874.5	1,055.5	1,099.9
Environmental biology	-	-	-	-	-	-	-	-	64.3	90.8	86.1
Agricultural	-	-	-	-	-	-	-	-	139.8	133.0	153.5
Medical sciences, total	198.7	211.1	245.8	253.2	317.6	342.4	374.4	414.8	467.7	560.1	657.0
Clinical medical	40.6	29.0	37.3	35.2	32.9	38.8	41.6	39.6	-	-	-
Other medical	158.2	182.1	208.5	218.0	284.7	303.5	332.8	375.2	-	-	-
Life sciences, n.e.c.	13.1	17.3	25.1	26.5	22.7	26.6	29.2	35.0	42.0	52.4	58.0
Psychology, total	48.1	46.0	51.4	45.4	46.1	58.6	45.5	55.7	67.5	75.1	84.2
Biological aspects	19.5	18.6	22.0	18.5	18.6	18.2	18.5	22.5	23.5	26.4	30.2
Social aspects	21.7	22.1	21.5	18.6	18.0	22.2	16.1	20.0	25.3	34.0	31.3
Psychological sciences, n.e.c.	6.9	5.3	7.9	8.2	9.5	18.2	11.0	13.1	18.7	14.7	22.6
Physical sciences, total	601.0	592.9	636.7	628.2	649.6	709.0	721.4	890.0	941.4	1,050.0	1,220.6
Astronomy	130.7	124.1	128.9	121.5	133.3	163.0	160.0	193.3	209.8	280.6	279.4
Chemistry	126.8	109.9	140.5	146.4	149.3	158.6	168.3	208.7	203.3	224.8	256.9
Physics	338.9	350.7	361.7	350.8	360.3	379.0	388.4	467.4	518.8	535.6	668.2
Physical sciences, n.e.c.	4.6	8.2	5.6	9.5	6.7	8.3	4.8	20.6	9.5	8.9	16.1
Environmental sciences, total	243.2	261.2	262.7	273.4	291.6	280.8	294.3	387.5	451.3	457.3	522.4
Atmospheric sciences	114.4	121.8	114.8	133.9	138.5	111.0	114.0	143.5	163.3	169.2	179.0
Geological sciences	78.2	76.8	67.0	79.9	80.9	88.6	95.7	128.7	145.1	157.6	198.3
Oceanography	47.5	57.6	71.2	46.2	62.9	73.2	76.6	104.6	120.7	119.1	130.7
Environmental sciences, n.e.c.	3.2	5.1	9.6	13.4	9.4	7.9	8.0	10.7	22.2	11.4	14.3
Math & computer sci, total	59.4	55.3	66.6	60.1	54.7	62.0	81.9	83.4	97.7	104.2	116.3
Mathematics	-	-	-	-	-	-	43.2	52.1	55.9	60.0	66.8
Computer sciences	-	-	-	-	-	-	26.6	31.0	40.3	43.0	46.2
Math & computer sci, n.e.c.	-	-	-	-	-	-	12.0	.3	1.6	1.2	3.2
Engineering, total	202.4	191.3	206.2	220.8	214.9	262.8	272.8	337.7	392.6	434.7	485.2
Aeronautical	34.8	29.1	27.3	34.3	32.2	30.2	32.0	49.5	82.8	86.4	104.2
Astronautical	12.6	11.6	7.7	7.2	11.1	11.3	11.9	10.2	14.9	25.2	27.2
Chemical	12.1	11.6	10.8	12.4	11.3	16.4	18.4	24.0	24.1	24.6	26.1
Civil	5.5	6.3	8.9	10.4	10.1	7.7	7.8	10.4	10.8	14.2	22.0
Electrical	33.6	34.9	41.6	44.0	38.4	47.8	53.1	55.1	57.4	62.0	70.6
Mechanical	35.3	26.0	26.8	27.8	17.3	17.6	20.1	29.6	29.5	35.9	42.2
Metallurgy & materials	49.6	58.2	62.5	67.7	74.6	99.7	103.3	124.9	134.5	151.1	121.3
Engineering, n.e.c.	18.8	13.6	20.6	16.9	19.8	32.2	26.3	33.9	38.4	33.2	51.6
Social sciences, total	63.9	70.2	80.1	80.2	74.8	73.8	86.4	95.5	124.3	129.7	147.2
Anthropology	7.9	8.8	9.9	10.7	8.8	7.0	6.4	8.0	12.0	12.5	14.2
Economics	24.4	23.7	23.6	21.7	25.1	22.1	25.6	29.1	33.6	42.7	40.0
Political science	3.9	2.3	2.8	3.0	2.2	1.6	3.0	2.5	3.2	4.1	7.4
Sociology	12.6	16.4	20.7	12.5	14.4	15.1	16.6	15.9	18.6	19.4	25.4
Social sciences, n.e.c.	15.0	19.2	23.1	32.4	24.3	28.0	34.8	39.9	57.0	51.0	60.2
History	4.4	3.7	4.3	4.6	5.9	6.0	-	-	-	-	-
Linguistics	1.7	1.9	2.5	3.1	2.1	2.1	-	-	-	-	-
Other social sciences	8.9	13.6	16.3	24.7	16.3	19.9	-	-	-	-	-
Other sciences, n.e.c.	11.1	15.7	15.6	35.6	25.7	25.5	43.1	25.5	35.4	50.0	63.9

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-1608. Federal obligations for basic research, by detailed field of science/engineering: fiscal years 1981-91

[Dollars in millions]

Field of science/engineering	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates 1990	Estimates 1991
Total, all fields	5,041.3	5,481.6	6,260.1	7,067.4	7,818.7	8,153.1	8,942.4	9,473.6	10,602.0	11,347.6	12,254.6
Life Sciences, total	2,223.8	2,526.0	2,891.3	3,287.6	3,786.6	3,858.8	4,361.9	4,501.8	4,915.7	5,203.2	5,589.4
Biol & agricultural, total	1,462.4	1,674.8	1,928.8	2,174.7	2,515.5	2,543.0	2,870.4	2,855.3	3,102.9	3,291.5	3,564.8
Biol (excl environmental)	1,201.7	1,401.2	1,621.9	1,835.8	2,106.3	2,151.5	2,461.5	2,414.9	2,647.2	2,803.8	3,040.3
Environmental biology	83.3	83.2	92.7	120.8	125.7	125.7	141.0	146.8	157.3	168.2	177.9
Agricultural	177.4	190.4	214.2	218.1	283.5	265.7	267.9	293.7	298.4	319.5	346.7
Medical sciences, total	706.2	793.4	878.9	1,015.3	1,148.4	1,196.6	1,341.0	1,573.2	1,708.4	1,800.8	1,905.9
Clinical medical	-	-	-	-	-	-	-	-	-	-	-
Other medical	-	-	-	-	-	-	-	-	-	-	-
Life sciences, n.e.c.	55.3	57.8	83.6	97.7	125.7	119.2	150.6	73.2	104.4	111.0	118.6
Psychology, total	91.0	89.9	92.9	107.9	132.8	133.0	147.1	177.8	187.1	202.2	221.4
Biological aspects	30.5	32.9	31.4	43.7	48.0	47.0	49.3	52.4	61.0	66.3	73.0
Social aspects	30.2	33.7	32.8	33.4	46.9	45.3	45.5	40.9	38.1	43.9	51.7
Psychological sciences, n.e.c.	30.2	23.3	28.7	30.8	38.0	40.7	52.3	84.5	88.0	92.0	96.7
Physical sciences, total	1,324.9	1,393.8	1,587.2	1,728.0	1,815.2	1,914.4	2,096.0	2,199.6	2,506.5	2,696.5	2,966.3
Astronomy	274.2	271.1	354.9	379.6	400.7	453.1	504.5	458.5	524.6	556.5	576.6
Chemistry	298.2	312.0	362.2	403.4	425.0	433.4	445.1	470.8	504.6	532.5	544.8
Physics	735.4	790.7	855.1	921.4	959.9	1,003.4	1,072.3	1,205.5	1,395.3	1,520.4	1,699.2
Physical sciences, n.e.c.	17.1	20.0	15.4	23.6	29.7	24.7	74.2	64.8	81.9	87.1	145.7
Environmental sciences, total	532.8	520.0	580.1	656.7	699.7	749.1	781.0	872.7	1,016.9	1,184.2	1,328.2
Atmospheric sciences	173.8	163.2	172.6	192.2	209.2	240.4	243.8	280.7	316.4	398.7	495.6
Geological sciences	194.2	177.5	178.3	198.0	250.0	265.5	286.2	267.3	334.9	371.4	383.3
Oceanography	143.3	154.5	196.6	220.1	219.3	224.3	249.8	269.4	293.5	316.6	372.7
Environmental sciences, n.e.c.	21.5	24.9	33.5	46.4	21.2	18.9	21.2	55.2	72.1	97.5	76.6
Math & computer sci, total	140.4	165.1	208.1	240.8	260.0	293.4	306.4	313.2	345.8	356.0	378.7
Mathematics	79.2	90.9	100.9	113.9	130.3	142.4	158.4	165.4	167.8	170.6	185.7
Computer sciences	52.2	67.4	90.4	104.8	116.1	131.4	128.5	125.5	159.5	161.4	172.8
Math & computer sci, n.e.c.	9.0	6.8	16.8	22.2	13.6	19.6	19.5	22.4	18.4	23.9	20.2
Engineering, total	526.0	610.5	689.5	845.0	984.2	1,158.5	1,[illegible]	1,006.2	1,183.7	1,198.7	1,253.3
Aeronautical	113.3	126.5	140.7	225.5	191.5	226.3	237.4	231.0	327.9	337.0	298.5
Astronautical	33.2	44.8	50.4	52.4	41.6	52.5	48.8	48.4	58.9	64.3	87.2
Chemical	31.3	35.2	50.4	55.5	74.4	73.0	77.5	88.6	90.1	58.0	64.1
Civil	23.4	32.0	32.4	41.9	47.6	45.2	45.7	46.1	51.7	49.7	55.4
Electrical	78.5	93.6	95.8	130.4	144.9	156.3	175.4	154.0	173.8	164.7	180.3
Mechanical	47.4	53.1	60.7	64.1	88.2	83.6	87.2	83.5	100.8	100.5	109.0
Metallurgy & materials	138.5	155.9	182.9	287.3	211.9	228.5	209.8	230.1	254.8	246.1	300.1
Engineering, n.e.c.	60.5	69.4	76.2	87.9	88.2	103.2	107.8	124.4	165.7	158.4	158.7
Social sciences, total	137.0	120.2	137.7	132.6	140.7	113.5	129.5	146.8	154.6	188.2	189.0
Anthropology	13.1	13.1	11.8	16.8	15.8	11.2	12.3	12.1	12.1	12.7	14.2
Economics	34.1	39.0	41.0	29.7	34.3	26.3	29.0	34.7	37.7	46.1	44.4
Political science	8.3	4.4	6.6	4.1	5.8	4.1	5.5	5.1	5.4	6.5	6.4
Sociology	22.6	18.7	32.8	33.9	32.4	30.0	34.3	36.8	38.2	54.1	81.3
Social sciences, n.e.c.	60.9	45.1	46.2	48.1	52.4	41.9	48.4	58.1	61.2	68.7	42.8
History	-	-	-	-	-	-	-	-	-	-	-
Linguistics	-	-	-	-	-	-	-	-	-	-	-
Other social sciences	-	-	-	-	-	-	-	-	-	-	-
Other sciences, n.e.c.	65.4	56.1	73.3	68.8	99.4	122.5	130.9	255.5	291.7	318.5	328.1

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-161A. Federal obligations for applied research, by detailed field of science/engineering: fiscal years 1970-80

[Dollars in millions]

Field of science/engineering	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
Total, all fields	2,974.9	3,143.0	3,360.8	3,349.4	3,787.6	4,141.3	4,851.9	5,255.5	5,908.2	6,342.3	6,923.2
Life Sciences, total	743.0	840.3	981.2	1,042.7	1,233.0	1,339.3	1,427.7	1,624.4	1,838.7	1,956.5	2,137.9
Biol & agricultural, total	380.6	423.8	482.9	514.6	624.3	705.2	717.4	844.0	945.3	1,041.0	1,168.1
Biol (excl environmental)	-	-	-	-	-	-	-	-	614.0	646.7	730.8
Environmental biology	-	-	-	-	-	-	-	-	120.5	125.8	143.6
Agricultural	-	-	-	-	-	-	-	-	210.8	268.6	293.7
Medical sciences, total	344.0	385.6	467.4	505.4	593.3	608.7	668.6	724.0	819.8	820.5	879.9
Clinical medical	333.7	362.0	426.9	459.0	532.7	511.7	545.1	594.8	-	-	-
Other medical	10.4	23.6	40.5	46.3	60.5	97.0	123.5	129.2	-	-	-
Life sciences, n.e.c.	18.3	30.9	31.0	22.8	15.4	25.4	41.7	56.4	73.6	89.0	89.9
Psychology, total	59.5	62.0	64.9	64.6	87.3	80.6	98.5	100.5	109.2	122.3	114.8
Biological aspects	12.8	12.7	14.9	13.8	30.7	19.2	25.3	35.1	29.9	30.4	29.7
Social aspects	31.8	32.0	29.2	29.1	33.9	34.9	38.8	34.5	40.1	48.6	53.5
Psychological sciences, n.e.c.	14.9	17.3	20.8	21.7	22.6	26.5	34.3	30.9	39.1	42.3	21.5
Physical sciences, total	348.2	312.5	383.6	353.5	366.5	387.7	537.5	640.2	704.2	742.6	780.0
Astronomy	5.7	2.8	7.5	1.6	2.7	5.3	3.1	4.0	3.8	3.8	6.3
Chemistry	100.8	95.7	106.3	116.1	131.1	126.9	160.2	162.0	201.7	218.8	197.6
Physics	215.6	178.1	211.8	192.5	196.3	216.0	320.8	398.8	423.6	487.1	514.4
Physical sciences, n.e.c.	23.1	36.0	57.9	43.4	36.3	39.5	53.3	75.3	75.1	32.8	61.8
Environmental sciences, total	242.4	273.1	304.9	307.1	344.7	448.5	475.0	518.5	573.3	643.7	738.6
Atmospheric sciences	118.4	138.1	126.5	112.7	149.8	191.2	175.3	174.9	155.9	179.5	230.5
Geological sciences	74.6	79.2	94.1	88.5	76.2	103.1	131.5	140.7	171.2	201.1	203.4
Oceanography	32.3	38.3	45.3	51.7	57.1	70.6	87.4	91.3	103.1	101.4	131.4
Environmental sciences, n.e.c.	17.1	17.5	39.1	54.3	61.6	81.6	80.8	111.6	143.0	161.7	173.3
Math & computer sci, total	35.6	51.3	54.1	54.7	61.5	63.3	76.0	112.5	118.5	106.1	124.7
Mathematics	-	-	-	-	-	-	26.7	44.3	37.5	24.2	24.1
Computer sciences	-	-	-	-	-	-	47.0	58.3	67.0	63.3	82.4
Math & computer sci, n.e.c.	-	-	-	-	-	-	2.3	9.9	14.1	18.6	18.2
Engineering, total	1,337.0	1,295.5	1,244.5	1,149.8	1,348.9	1,454.9	1,795.9	1,775.2	2,028.6	2,137.0	2,364.9
Aeronautical	301.2	261.4	182.2	198.4	303.9	314.9	494.8	359.3	400.0	536.5	604.0
Astronautical	165.2	141.6	57.8	38.7	86.4	97.8	167.5	148.8	150.2	226.0	275.1
Chemical	97.3	93.9	66.3	59.5	50.1	67.5	69.8	80.8	125.3	89.7	70.2
Civil	65.6	70.5	114.4	95.7	93.5	117.9	98.1	107.0	131.6	110.8	136.8
Electrical	249.9	243.0	292.1	253.6	230.8	239.2	244.6	327.6	375.2	355.8	446.6
Mechanical	143.1	163.2	148.0	185.1	114.4	144.8	165.6	169.5	204.7	160.0	165.8
Metallurgy & materials	86.9	99.2	119.5	104.8	116.0	122.1	171.6	168.9	151.4	98.2	114.8
Engineering, n.e.c.	227.9	222.8	264.2	213.9	353.7	360.7	383.7	413.3	490.2	560.0	551.6
Social sciences, total	148.4	233.7	226.8	218.6	217.4	228.1	306.0	330.6	365.1	397.6	376.6
Anthropology	.7	3.0	3.3	1.1	4.6	6.9	7.2	4.3	7.6	4.9	2.9
Economics	53.3	49.1	58.2	66.4	92.9	106.2	111.9	113.8	129.6	149.2	152.8
Political science	3.9	2.7	1.7	4.1	6.2	10.1	4.2	5.9	5.6	9.8	4.8
Sociology	25.2	88.9	98.7	89.6	49.9	39.8	37.0	36.2	41.7	46.1	46.1
Social sciences, n.e.c.	65.3	90.0	64.9	57.3	63.8	67.1	145.6	170.3	180.6	187.6	170.1
History	.2	.5	.2	.2	.3	1.0	-	-	-	-	-
Linguistics	.1	.8	1.3	1.1	1.0	.9	-	-	-	-	-
Other social sciences	65.0	88.8	63.4	55.9	62.5	65.2	-	-	-	-	-
Other sciences, n.e.c.	64.0	74.6	100.6	158.4	128.4	141.0	135.4	153.6	170.4	236.6	285.7

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-1618. Federal obligations for applied research, by detailed field of science/engineering: fiscal years 1981-91

[Dollars in millions]

Field of science/engineering	1981	1982	1983	1984	1985	1986	1987	1988	1989	Estimates 1990	Estimates 1991
Total, all fields	7,171.5	7,540.6	7,993.4	7,911.4	8,314.7	8,349.1	8,997.9	9,176.4	10,163.3	10,335.2	10,965.2
Life Sciences, total	2,211.8	2,219.5	2,286.6	2,348.3	2,575.9	2,605.5	2,979.5	3,222.7	3,579.4	3,710.4	3,817.6
Biol & agricultural, total	1,249.4	1,137.0	1,135.6	1,150.3	1,239.8	1,318.4	1,488.1	1,718.0	1,917.2	1,983.0	2,059.0
Biol (excl environmental)	796.9	678.1	683.7	727.3	779.3	841.9	1,040.5	1,266.8	1,336.0	1,443.9	1,479.8
Environmental biology	137.0	100.4	101.0	129.2	134.6	138.3	148.6	154.2	210.5	187.2	192.3
Agricultural	317.4	358.6	351.0	293.8	325.8	338.1	299.1	297.0	370.7	351.9	386.9
Medical sciences, total	903.7	979.6	1,048.5	1,097.5	1,223.1	1,163.8	1,323.8	1,367.8	1,514.1	1,571.5	1,600.5
Clinical medical	-	-	-	-	-	-	-	-	-	-	-
Other medical	-	-	-	-	-	-	-	-	-	-	-
Life sciences, n.e.c.	58.7	102.9	102.4	100.4	113.0	123.3	167.6	136.9	148.1	155.9	158.2
Psychology, total	117.9	129.5	147.9	158.9	194.3	201.0	222.4	212.0	234.5	245.7	298.4
Biological aspects	27.0	26.7	31.8	37.1	43.2	43.1	49.1	52.9	60.8	69.8	73.2
Social aspects	63.3	64.4	71.8	74.3	96.0	98.3	108.9	108.4	111.8	117.4	126.3
Psychological sciences, n.e.c.	27.7	37.4	44.3	47.4	55.1	59.7	64.4	50.7	61.9	58.4	88.8
Physical sciences, total	895.6	1,106.5	1,304.3	1,241.0	1,230.8	1,154.6	1,156.6	1,117.7	1,198.8	1,198.4	1,225.2
Astronomy	6.8	4.7	3.0	2.7	14.1	15.1	17.7	12.3	17.3	24.8	23.5
Chemistry	188.7	169.2	158.1	203.0	225.4	229.0	235.2	232.3	278.0	306.5	287.7
Physics	610.2	819.8	999.5	915.0	856.1	802.6	781.4	769.8	795.5	766.7	780.1
Physical sciences, n.e.c.	89.9	112.9	143.7	120.3	135.2	107.9	122.4	103.3	108.0	100.4	133.9
Environmental sciences, total	588.2	628.3	671.2	619.2	704.0	732.6	730.6	734.3	756.3	919.7	1,016.6
Atmospheric sciences	199.6	262.6	288.1	242.0	276.8	280.9	309.1	307.1	271.6	338.6	415.9
Geological sciences	201.9	180.1	155.2	161.0	179.0	178.4	175.6	174.3	207.8	220.3	213.0
Oceanography	118.4	106.8	147.9	143.4	179.3	205.4	177.6	190.9	198.4	208.7	210.1
Environmental sciences, n.e.c.	68.4	78.7	80.0	72.9	69.0	67.9	68.3	61.9	78.5	152.1	177.6
Math & computer sci, total	138.6	185.0	211.3	199.5	314.9	322.0	334.3	329.6	389.7	365.0	413.5
Mathematics	38.6	37.3	32.6	37.1	53.4	42.1	46.1	52.5	68.3	65.3	68.8
Computer sciences	69.3	103.5	124.1	109.7	164.2	171.0	169.3	167.2	205.1	177.7	213.6
Math & computer sci, n.e.c.	30.7	44.3	54.6	52.7	97.3	108.9	118.9	109.9	116.3	122.0	131.1
Engineering, total	2,545.4	2,776.1	2,827.5	2,779.1	2,733.4	2,770.4	2,916.7	2,950.0	3,258.3	3,162.4	3,430.6
Aeronautical	596.3	614.7	679.9	634.9	546.5	549.3	573.0	570.8	658.9	727.4	776.6
Astronautical	270.8	245.9	271.1	344.4	383.2	474.4	575.9	526.9	618.5	548.4	716.1
Chemical	116.3	99.9	94.6	88.9	179.9	172.8	138.3	169.5	92.2	94.7	98.1
Civil	135.8	169.9	156.0	161.0	173.0	157.8	158.6	168.6	177.9	185.4	194.7
Electrical	478.2	518.6	519.1	499.7	481.9	518.1	610.9	577.1	669.3	534.8	535.6
Mechanical	157.3	148.1	205.7	126.3	178.8	153.0	146.2	157.2	156.5	162.6	179.0
Metallurgy & materials	117.5	153.2	149.6	153.7	227.4	216.6	152.2	226.6	266.2	253.7	299.0
Engineering, n.e.c.	673.4	865.7	751.4	770.1	562.8	528.5	561.6	553.3	618.8	655.6	631.4
Social sciences, total	360.5	265.7	297.5	303.8	319.3	302.0	350.5	339.0	396.4	432.7	456.9
Anthropology	1.5	1.5	1.6	1.7	2.1	2.4	2.9	2.2	1.8	1.8	2.1
Economics	172.6	118.2	124.6	117.6	125.4	105.0	119.6	124.8	129.1	134.1	142.6
Political science	4.5	3.2	6.6	6.7	8.9	7.5	5.8	7.1	8.1	6.4	6.2
Sociology	42.4	33.3	35.0	36.3	34.0	37.0	39.6	45.0	55.9	68.4	72.6
Social sciences, n.e.c.	139.5	109.5	129.8	141.4	148.9	150.2	182.6	159.9	201.6	222.1	233.4
History	-	-	-	-	-	-	-	-	-	-	-
Linguistics	-	-	-	-	-	-	-	-	-	-	-
Other social sciences	-	-	-	-	-	-	-	-	-	-	-
Other sciences, n.e.c.	311.5	231.3	247.1	261.7	242.2	260.9	307.4	271.0	350.0	360.9	316.4

n.e.c. = Not elsewhere classified.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-162. Federal obligations for research and development, by geographic division and State: fiscal years 1979-89

[Dollars in millions]

Division and state	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	27,084.2	28,627.3	31,929.6	35,361.6	37,627.8	41,148.5	47,214.8	50,310.2	54,066.8	55,470.3	59,484.3
New England	2,658.6	2,780.7	3,172.5	3,567.3	3,699.9	4,052.7	4,557.0	4,423.0	5,250.2	3,813.7	4,019.1
Connecticut	328.4	470.3	485.0	439.6	743.3	675.9	742.8	577.3	672.2	619.5	596.7
Maine	23.1	25.9	24.4	23.9	29.3	38.1	36.7	35.6	178.6	39.8	67.7
Massachusetts	2,055.6	2,047.7	2,407.1	2,775.2	2,559.3	2,882.6	3,276.7	3,240.3	3,910.8	2,702.0	2,882.5
New Hampshire	94.1	50.2	54.8	50.8	76.8	116.4	130.3	136.0	83.6	60.8	98.0
Rhode Island	140.7	149.9	182.5	242.1	267.5	306.1	334.3	392.7	365.4	335.6	314.1
Vermont	16.7	36.6	18.7	35.7	23.7	33.8	36.1	41.1	39.6	55.9	60.1
Middle Atlantic	3,111.4	3,257.6	3,416.0	3,711.9	4,990.0	5,185.5	6,249.9	6,246.2	5,738.6	5,629.6	6,186.4
New Jersey	649.3	729.4	775.4	887.9	1,293.4	1,550.0	1,791.8	1,781.4	1,114.9	1,209.3	1,320.4
New York	1,362.2	1,468.8	1,557.7	1,692.5	2,523.2	2,493.4	3,128.4	3,163.5	2,941.8	2,688.7	2,904.1
Pennsylvania	1,099.9	1,059.4	1,082.9	1,131.5	1,173.3	1,142.2	1,329.6	1,301.3	1,681.9	1,731.6	1,961.9
East North Central	2,097.8	2,316.2	2,349.3	2,260.1	2,505.9	2,923.5	3,223.9	3,274.2	3,697.8	3,668.7	4,190.1
Illinois	547.2	599.9	572.6	543.0	567.5	675.6	772.8	745.0	827.3	850.7	909.1
Indiana	122.0	162.4	170.1	186.2	213.6	236.0	227.7	295.1	339.4	312.1	392.5
Michigan	264.4	377.5	357.2	376.7	412.5	479.4	502.1	460.5	463.3	417.5	686.2
Ohio	1,053.2	1,054.7	1,117.2	1,024.8	1,170.1	1,366.5	1,520.5	1,591.7	1,862.9	1,865.2	1,938.8
Wisconsin	111.0	121.7	132.2	129.4	142.4	166.0	200.8	181.9	204.8	223.2	263.5
West North Central	1,277.8	1,618.5	1,829.6	2,151.3	1,299.6	1,617.4	1,783.0	1,613.0	1,468.9	1,637.6	2,258.4
Iowa	84.9	121.7	147.4	136.3	95.2	134.5	150.3	224.3	162.4	197.1	190.9
Kansas	136.3	353.6	471.0	637.7	97.4	101.9	138.1	112.7	94.2	126.7	128.8
Minnesota	202.8	261.6	309.0	378.6	448.2	636.8	718.7	515.4	506.6	576.8	597.3
Missouri	778.9	801.6	820.4	911.3	576.8	659.5	694.2	677.8	614.7	637.6	1,241.9
Nebraska	31.3	31.6	31.7	32.0	42.3	33.0	34.6	41.1	48.9	52.1	51.2
North Dakota	33.4	38.7	40.1	36.5	27.2	37.8	32.7	27.2	29.4	32.5	33.3
South Dakota	10.2	9.9	10.2	19.0	12.4	14.0	14.4	14.6	12.8	14.7	15.0
South Atlantic	5,567.6	6,109.8	6,674.3	7,563.6	8,927.8	9,979.7	11,125.6	12,084.2	12,042.4	13,414.3	13,124.7
Delaware	14.4	20.8	25.9	34.6	20.4	63.7	34.7	30.2	32.3	36.0	31.9
District of Columbia	768.4	807.0	921.0	954.6	1,196.1	1,796.0	2,077.7	2,324.0	2,208.5	2,924.6	1,914.2
Florida	913.1	1,120.8	1,373.7	1,776.4	1,276.0	1,138.1	1,205.2	1,448.0	2,297.3	2,133.4	2,269.8
Georgia	184.4	189.8	195.0	217.3	237.2	245.5	291.8	250.5	352.1	350.4	392.5
Maryland	2,299.8	2,465.0	2,585.1	2,850.2	3,412.4	3,917.9	4,371.6	4,512.5	4,036.3	4,355.3	4,849.0
North Carolina	220.9	227.7	259.8	272.7	312.5	378.3	485.7	497.7	583.8	625.0	562.8
South Carolina	114.3	87.5	98.1	98.7	104.6	119.8	119.9	122.5	123.7	147.1	222.6
Virginia	945.1	1,059.3	1,066.4	1,268.1	2,286.1	2,247.2	2,472.4	2,810.0	2,292.5	2,729.1	2,778.0
West Virginia	107.2	152.0	151.2	91.0	82.5	73.3	66.5	88.7	115.8	113.4	104.0
East South Central	1,304.6	1,395.8	1,603.7	1,486.7	1,386.0	1,541.3	1,694.6	1,981.9	2,324.8	2,184.4	2,494.5
Alabama	516.9	455.7	493.5	561.5	671.7	792.6	896.6	1,188.2	1,346.4	1,363.7	1,646.7
Kentucky	43.0	107.9	101.0	97.2	93.1	56.5	69.2	59.1	61.9	68.5	73.0
Mississippi	100.7	109.3	125.5	125.7	185.8	145.5	172.4	143.4	184.4	185.1	198.7
Tennessee	644.1	722.9	883.6	702.3	435.5	546.7	556.3	591.3	732.0	567.2	576.0
West South Central	1,316.6	1,229.3	1,477.1	1,400.1	1,698.4	1,704.0	1,904.4	2,114.6	2,520.4	2,776.4	3,543.4
Arkansas	37.3	30.0	31.2	43.5	31.4	35.0	39.7	40.5	52.3	56.4	57.0
Louisiana	209.1	196.3	331.8	236.8	186.6	129.7	118.8	92.4	107.4	101.3	179.6
Oklahoma	70.1	94.5	82.4	65.6	67.9	65.5	81.3	69.8	99.4	103.7	117.6
Texas	1,000.1	908.6	1,031.7	1,054.3	1,412.6	1,473.8	1,664.6	1,912.0	2,261.3	2,514.9	3,189.2
Mountain	2,262.7	2,568.2	3,016.4	3,002.8	3,913.1	3,949.0	4,508.2	5,579.1	5,104.9	5,293.9	5,555.7
Arizona	201.4	334.6	367.7	264.5	469.3	383.9	458.2	398.1	414.9	369.4	501.2
Colorado	442.2	573.7	632.8	556.6	436.2	531.6	629.2	1,636.4	1,516.3	1,408.4	1,618.1
Idaho	147.1	147.7	119.5	127.0	223.4	195.2	259.7	266.6	232.7	250.1	195.9
Montana	41.6	45.7	45.4	42.7	35.0	26.6	26.0	26.4	30.1	35.5	36.2
Nevada	222.1	214.5	263.0	376.3	647.1	440.5	490.4	462.6	462.0	443.3	427.5
New Mexico	955.5	954.2	1,224.1	1,322.6	1,804.9	2,104.8	2,368.6	2,500.0	1,998.2	2,296.1	2,220.4
Utah	211.6	243.9	305.7	287.9	268.9	232.4	250.9	274.6	427.3	462.0	517.8
Wyoming	41.0	53.9	58.2	25.4	28.4	34.0	25.1	14.5	23.5	29.0	38.5
Pacific	7,390.2	7,232.4	8,304.6	10,118.0	9,124.0	10,115.9	12,069.6	12,898.0	15,797.7	16,964.5	18,022.8
Alaska	45.9	42.5	51.8	40.0	40.4	47.7	51.5	49.4	48.8	50.5	71.3
California	6,338.6	6,097.7	7,049.7	8,888.3	8,194.9	8,995.8	10,771.8	11,512.3	13,672.2	14,895.9	15,919.4
Hawaii	40.8	42.6	49.9	44.5	71.4	52.9	56.2	54.7	63.9	82.2	97.4
Oregon	100.1	97.9	105.6	106.3	108.0	137.8	151.6	127.6	133.9	170.3	168.4
Washington	864.7	951.8	1,047.5	1,038.9	709.3	881.8	1,036.5	1,153.9	1,878.8	1,765.6	1,766.2
Outlying areas	39.4	45.3	38.9	40.7	32.0	44.9	62.8	36.8	42.9	33.0	45.7
Offices abroad	57.7	73.5	47.2	59.0	51.0	34.6	35.9	59.2	78.2	54.2	43.4

NOTES: For each year, the data shown include the obligations of the 10 or 11 major R&D-supporting agencies which were requested to report to this section of the survey in that year, and represent 97 percent or more of the total Federal R&D obligations in that year.

Although the non-geographic historical tables incorporate corrections to previously reported data that have been submitted by the reporting agencies, corresponding corrections to the geographic distributions are rarely obtainable.

SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

Table C-163. Federal obligations for R&D plant, by geographic division and State: fiscal years 1979-89

[Dollars in millions]

Division and state	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Total	1,393.8	1,533.1	1,454.4	1,380.1	1,280.9	1,770.6	1,774.7	1,482.5	2,066.5	2,025.1	2,144.3
New England	58.2	24.1	54.2	50.6	37.5	68.8	106.5	24.8	45.1	105.6	59.4
Connecticut	12.3	1.0	9.2	25.1	5.5	5.2	8.4	1.2	.4	1.0	1.4
Maine	.1	*	*	*	*	*	*	*	*	.3	.1
Massachusetts	36.9	20.4	35.7	23.3	29.4	62.8	66.1	17.7	37.0	94.2	54.7
New Hampshire	5.4	*	7.7	.1	.7	.1	.4	.3	.2	*	.2
Rhode Island	3.5	2.6	1.6	2.1	1.9	.7	31.6	5.5	6.4	2.0	1.6
Vermont	*	-	*	-	-	-	-	-	1.0	8.0	1.4
Middle Atlantic	180.7	187.4	236.1	173.1	138.2	247.8	134.2	161.7	195.6	224.2	227.4
New Jersey	64.8	60.5	55.7	57.0	42.0	52.7	40.1	37.6	39.8	52.6	46.8
New York	69.4	91.4	85.1	65.0	77.0	175.0	75.3	105.0	114.1	115.3	101.6
Pennsylvania	46.5	35.5	95.2	51.1	19.2	20.1	18.7	19.0	41.7	56.3	79.0
East North Central	96.4	123.3	152.6	107.4	92.2	150.2	171.9	120.3	197.4	153.5	174.6
Illinois	61.9	71.5	74.1	74.3	80.3	81.2	110.1	96.6	94.3	76.7	94.9
Indiana	.7	.7	.9	.6	1.3	2.8	4.5	.5	5.8	1.9	1.5
Michigan	3.0	8.3	9.5	7.8	1.1	6.4	5.1	1.2	1.4	4.4	4.6
Ohio	28.0	40.3	65.2	23.7	7.5	49.6	46.3	19.2	92.0	68.5	69.8
Wisconsin	2.9	2.5	3.0	1.0	1.9	10.2	5.6	2.7	4.0	2.0	4.0
West North Central	12.4	53.5	7.1	11.2	11.4	12.5	10.0	66.2	82.5	21.2	22.4
Iowa	2.2	2.9	2.1	2.2	2.7	3.5	1.4	3.3	22.7	3.8	6.2
Kansas	*	.1	.1	.1	.2	.3	2.3	41.0	49.8	.1	1.6
Minnesota	.8	.3	.5	.4	.8	3.1	.8	1.1	.4	.7	1.8
Missouri	5.6	40.9	1.8	5.7	6.0	3.9	3.7	4.7	7.4	2.7	3.7
Nebraska	.8	2.1	.6	.7	.5	.7	.4	7.3	1.4	4.1	2.8
North Dakota	1.4	4.1	1.4	1.2	.9	.9	1.3	8.8	.8	9.2	6.0
South Dakota	1.6	3.1	.7	.9	.2	.1	.1	*	.1	.6	.3
South Atlantic	202.0	181.2	170.3	237.9	251.6	544.9	339.8	239.4	465.1	322.6	415.5
Delaware	-	.7	1.6	.1	.4	.6	.4	.4	.4	1.3	.2
District of Columbia	22.0	14.3	31.7	33.6	24.6	62.4	92.5	28.0	24.3	15.4	17.1
Florida	46.0	46.7	25.5	31.8	37.2	91.2	42.8	53.2	97.4	86.0	100.0
Georgia	1.0	.5	1.6	1.5	2.1	3.8	2.6	15.6	23.1	2.7	10.8
Maryland	64.3	53.3	52.3	82.2	80.8	180.1	145.4	78.6	141.4	79.2	120.1
North Carolina	3.9	8.2	1.2	1.4	4.1	3.6	10.4	2.2	3.4	.9	4.3
South Carolina	9.7	3.1	18.8	65.2	49.6	146.4	7.5	5.7	19.6	8.2	8.9
Virginia	42.0	41.5	33.9	21.1	29.4	52.2	26.7	45.5	138.9	105.5	127.4
West Virginia	13.1	12.9	3.7	1.1	23.3	4.8	11.4	10.2	16.5	23.2	26.7
East South Central	65.1	134.7	109.6	78.4	40.1	110.4	88.1	85.8	150.3	128.2	147.6
Alabama	2.6	47.9	16.5	5.8	6.0	26.4	41.4	41.2	61.4	51.8	47.2
Kentucky	2.9	*	4.3	1.4	.4	.3	.3	.3	1.7	.1	.5
Mississippi	3.8	6.6	3.4	5.9	6.4	13.7	12.6	13.5	57.9	19.1	41.1
Tennessee	55.8	80.1	85.5	65.2	27.3	69.9	33.8	30.8	29.4	57.2	58.8
West South Central	27.3	30.8	31.3	34.7	9.9	13.6	23.6	85.0	98.5	83.7	152.4
Arkansas	.2	.7	.7	1.0	1.5	.5	.5	.9	.5	.4	3.1
Louisiana	16.7	12.6	14.1	22.2	2.4	2.6	2.0	2.2	3.3	31.9	47.2
Oklahoma	.6	3.2	2.7	1.2	1.3	.9	1.7	2.3	.9	10.7	4.5
Texas	9.7	14.2	13.9	10.2	4.7	9.6	19.4	79.7	93.8	40.7	97.6
Mountain	254.9	284.3	244.9	269.4	294.5	281.0	445.1	318.6	444.4	456.6	413.9
Arizona	35.3	1.8	.4	.4	5.4	3.6	2.9	1.7	19.6	21.8	18.1
Colorado	9.7	35.6	26.9	16.6	43.9	52.3	32.4	16.3	16.4	53.5	62.5
Idaho	41.8	45.1	11.9	21.4	19.7	11.9	8.3	24.7	17.8	39.6	12.0
Montana	1.2	3.7	.1	.1	.2	.2	.2	.2	.2	.2	.2
Nevada	24.2	22.4	82.9	30.0	33.0	108.4	155.2	69.9	87.0	103.3	69.3
New Mexico	138.6	169.5	119.3	196.6	191.8	102.3	243.7	192.0	288.8	231.4	239.6
Utah	2.9	1.9	1.5	3.1	.5	2.0	2.4	13.6	14.2	6.8	12.1
Wyoming	1.2	4.3	2.0	1.2	.1	.3	.1	.1	.3	.2	.1
Pacific	489.2	509.8	446.2	415.5	403.6	334.5	451.8	362.5	367.4	482.1	512.8
Alaska	.8	.1	*	*	21.3	.1	12.9	-	-	6.4	-
California	400.2	377.4	355.4	334.6	368.4	316.8	404.2	323.5	315.3	429.0	446.7
Hawaii	.5	.2	.7	.1	1.6	.6	.9	.6	.6	6.9	.4
Oregon	.9	3.9	1.0	.1	.2	3.4	1.2	12.0	24.9	8.6	30.1
Washington	86.8	128.2	89.0	80.8	12.0	13.6	32.7	26.4	26.6	31.2	35.5
Outlying areas	.5	2.9	.7	.5	.2	3.3	1.4	13.9	18.2	46.5	1.5
Offices abroad	7.1	1.1	1.3	1.4	1.7	3.5	2.3	4.5	2.0	.9	16.8

* Amount less than $50,000.

NOTES: For each year, the data shown include the obligations of the 10 or 11 major R&D-supporting agencies which were requested to report to this section of the survey in that year, and represent 97 percent or more of the total Federal R&D obligations in that year.

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SOURCE: National Science Foundation/SRS, Federal Funds for Research and Development: Fiscal Years 1989, 1990 and 1991

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